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<213≻ Homo sapiens

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<211> 2735

<212> DNA

<213> Homo sapiens

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<211> 1847

<212> DNA

<213> Homo sapiens

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<211> 2987

<212> DNA

<213> Homo sapiens

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<211> 2253

<212> DNA

<213> Homo sapiens

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 $\langle 213 \rangle$  Homo sapiens

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<213> Homo sapiens

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<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<sup>&</sup>lt;212> DNA

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1980

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<211> 2510

<212> DNA

<213> Homo sapiens

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⟨211⟩ 2536

<212> DNA

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<211> 2568

<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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<211> 2194

<212> DNA

<213> Homo sapiens

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<sup>&</sup>lt;210> 4674

<sup>&</sup>lt;211> 2876

<sup>&</sup>lt;212> DNA

<sup>&</sup>lt;213> Homo sapiens

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<211> 2262

<212> DNA

<213> Homo sapiens

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<211> 4486

<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

## <400> 4683

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aagttcacgc	ggcgcgagca	catgaagcgc	cacacgctgg	tccacagcaa	ggacaagaag	1620
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ggctccaggc	gccacggtgt	gtgcaccgac	tgtgctggcc	gcggcatggc	cgggcccctg	1740
gaccatggcg	gcggaggcgg	cgagggctct	ccagaggcgc	tgttcccagg	cgacgggccc	1800
tatctggagg	accctgagga	cccacgaggg	gaggcggagg	agctgggcga	ggacgacgag	1860
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ccgcgcagcc	ccccaggagg	ccctgacaag	gacttcgcct	ggctctccta	ggcccgcccg	1980
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caccccccac	ggaaaccagc	cctgcgggct	aagcaggtgc	gaccccagca	agaggggtgc	2160
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ctgagcttca	gggctgcgtg	gaaagagttt	ttactctctt	tttctagcct	gtataccagg	3420
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tggagctgtc	atcacacaca	ccctcagct	cggaggctgt	gggctcctca	aagctggaga	3660
aagaggccaa	gatttttctg	cacacggagt	gtggggatag	gagccgggcc	aagcgctggc	3720
ccctcagcgg	tgagccctgc	ccactcttac	cgagcaaggt	gggtggctct	ggcacgagtc	3780
ccccaggggg	agagcatggc	taccagggag	ctgcagcgga	gccctccagc	cctcacccca	3840
ggccagcccc	accccggcct	ctttgagaat	tctcagaact	ttgtaccttt	cccctgattt	3900
ttaaaccctt	tttctaaaca	gactgacttt	cttacaaaat	gcatttggaa	accagacctt	3960
tgctacccac	caatgtctct	gggttttgta	ccagtccctg	ctctcaggcc	accctgccca	4020
ggacccaggc	ccgcctcccc	ctccacactc	aggatgtcct	gctccatctg	gccggctcac	4080
tccgtgtggc	ctgcctttgc	tgaccgtttt	ggggttcccc	gccggagcta	caggggcatt	4140
ttcttcccta	aaaccaacag	tgtcccactg	acctccccaa	gtgtttgctg	cgtggcagat	4200
ttcctgttct	tgttcgcagt	ttgccgactg	aagagtgtgg	gatttccgag	gcccaggtga	4260
gcacgtccat	ctcaggaggc	gtggagggaa	aagacatgtc	atgaagggtt	ttttttatgt	4320
gactgatttt	tttttaaatc	gatgttcaaa	ctaataaata	ttttttatg	aagagg	4376

<211> 492

<212> PRT

<213> Homo sapiens

<400> 4684

Met Pro Ser Phe Leu Val Pro Ser Leu Val Ser Ser Pro Val Leu Leu 1 10 Lys Leu Leu Phe Ser Pro Gly Pro Lys Thr lle Trp Ser Leu Trp Gln 25 Gln Pro Met Leu Phe Gln Glu Ala Thr Ala Phe Glu Asn Met Thr Lys 35 40 45 Asp Trp Asn Tyr Leu Glu Gly Ser Gln Lys Asp Cys Tyr Arg Asp Thr 55 Met Leu Asp Ser Tyr Glu Asn Thr Val Pro Gln Gly Ser Phe Leu Gln 70 65 75 Leu Ser Met Met Pro Gln Arg Ala Gly Asn Asp Pro Pro Gly Val Ser

90

95

Asn	Ala	Ser	Glu	Met	Glu	Met	Glu	Ile	Ser	Asn	Met	Arg	Glu	Lys	Phe
			100					105					110		
Leu	Met	Ser	Val	Thr	Lys	Leu	Val	Glu	Ser	Lys	Ser	Tyr	Asn	Ser	Lys
		115					120					125			
Val	Phe	Ser	Lys	Glu	Lys	Tyr	Phe	Gln	Thr	He	Lys	Glu	Val	Lys	Glu
	130					135					140				
Ala	Lys	Glu	Lys	Gly	Lys	Lys	Ser	Ser	Arg	Asp	Tyr	Arg	Arg	Ala	Ala
145					150					155					160
Lys	Tyr	Asp	Val	Ile	Ser	Val	Gln	Gly	Thr	Glu	Lys	Leu	Ile	Glu	Ala
				165					170					175	
Thr	His	Gly	Glu	Arg	Asp	Arg	He		Tyr	Tyr	Val	His	Lys	Glu	Glu
			180					185					190		
Leu	Phe		He	Leu	His	Asp		His	Leu	Ser	He		His	Gly	G1 y
		195					200			_		205			
Arg		Arg	Met	Leu	Lys		Leu	GIn	G1 y	Lys		GIy	Asn	Val	Thr
,	210	V: 1	2.1	17 1	,	215	,	TI		C	220	61	C		C1
	GJu	Val	11e	Val		lyr	Leu	Inr	Leu		Lys	GIn	Cys	HIS	
225	۸	D	V = 1	Dua	230	A 70.00	C1	Lau	<b>11</b> 0	235 Pms	Luc	Dave	Mot	Thu	240
Lys	ASI	rro	vai	245	Lys	Arg	GIY	Leu	250	PTO	Lys	110	Met	255	rne
lve	Asn	110	Aen		Thr	Cve	Gln	Val		ماا	ا ما	Aen	Met		Ser
rys	пър	116	260	361	1111	Cys	0111	265	014	110	LCu	пар	270	OIII	561
Ser	Ala	Asn		Glu	Phe	lvs	Phe		Leu	Tvr	Tvr	Gln	Asp	His	Ser
		275	4.4.3	0.0			280			•	- , -	285			
Thr	Lys		He	He	Leu	Arg		Leu	Arg	Thr	Lys	•	Ala	His	61u
	290					295			Ü		300				
Val	Va]	Ser	Val	Leu	Leu	Asp	lle	Phe	Thr	lle	Leu	Gly	Thr	Pro	Ser
305					310					315					320
Val	Leu	Asp	Ser	Asp	Ser	Gly	Va]	Glu	Phe	Thr	Asn	Gln	Val	Val	His
				325					330					335	
Glu	Leu	Asn	Glu	Leu	Trp	Pro	Asp	Leu	Lys	lle	Val	Ser	Gly	Lys	Tyr
			340					345					350		
His	Pro	Gly	Gln	Ser	Gln	Gly	Ser	Leu	Glu	G1 y	Ala	Ser	Arg	Asp	Va1
		355					360					365			
Lys	Asn	Met	He	Ser	Thr	Trp	Met	Gln	Ser	Asn	His	Ser	Cys	His	Trp
	370					375					380				

Ala Lys Gly Leu Arg Phe Met Gln Met Val Arg Asn Gln Ala Phe Asp Val Ser Leu Gln Gln Ser Pro Phe Glu Ala Met Phe Gly Tyr Lys Ala Lys Phe Gly Leu Tyr Ser Ser Asn Leu Pro Arg Glu Thr Val Ala Thr Leu Gln Thr Glu Glu Glu Leu Glu Ile Ala Glu Glu Gln Leu Glu Asn Ser Leu Trp lle Arg Gln Glu Glu Arg Ala Glu Ile Gly Ala Asp Arg Ser Asp Met Asp Asp Asp Met Asp Pro Thr Pro Glu Ala Ser Glu Pro Ser Thr Ser Gln Gly Thr Ser Gly Leu Leu Cys Trp 

<210> 4685

<211> 287

<212> PRT

<213> Homo sapiens

<400> 4685

Met Asp Arg Pro Asp Glu Gly Pro Pro Ala Lys Thr Arg Arg Leu Ser Ser Ser Glu Ser Pro Gln Arg Asp Pro Pro Pro Pro Pro Pro Pro Pro Pro Leu Leu Arg Leu Pro Leu Pro Pro Pro Gln Gln Arg Pro Arg Leu Gln Glu Glu Thr Glu Ala Ala Gln Val Leu Ala Asp Met Arg Gly Val Gly Leu Gly Pro Ala Leu Pro Pro Pro Pro Pro Tyr Val 11e Leu Glu Glu Gly Gly lle Arg Ala Tyr Phe Thr Leu Gly Ala Glu Cys Pro Gly Trp Asp Ser Thr Ile Glu Ser Gly Tyr Gly Glu Ala Pro Pro Pro Thr

Glu Ser Leu Glu Ala Leu Pro Thr Pro Glu Ala Ser Gly Gly Ser Leu Glu lle Asp Phe Gln Val Val Gln Ser Ser Ser Phe Gly Gly Glu Gly Ala Leu Glu Thr Cys Ser Ala Val Gly Trp Ala Pro Gln Arg Leu Val Asp Pro Lys Ser Lys Glu Glu Ala Ile Ile Ile Val Glu Asp Glu Asp Glu Asp Glu Arg Glu Ser Met Arg Ser Ser Arg Arg Arg Arg Arg Arg Arg Arg Arg Lys Gln Arg Lys Val Lys Arg Glu Ser Arg Glu Arg Asn Ala Glu Arg Met Glu Ser Ile Leu Gln Ala Leu Glu Asp Ile Gln Leu Asp Leu Glu Ala Val Asn lle Lys Ala Gly Lys Ala Phe Leu Arg Leu Lys Arg Lys Phe Ile Gln Met Arg Arg Pro Phe Leu Glu Arg Arg Asp Leu Ile Ile Gln His Ile Pro Gly Phe Trp Val Lys Ala Leu His Ser Ser Val Pro Gln Pro Pro Gln Asn Phe Asn Phe Asp Gln Pro Thr 

<210> 4686

<211> 196

<212> PRT

<213> Homo sapiens

<400> 4686

 Met
 Ser
 Glu
 Gly
 Pro
 Gly
 Cys
 Met
 Gly
 Ser
 Glu
 Gly
 Glo
 Leu
 Cys
 Pro

 1
 5
 10
 15
 15

 Trp
 Ser
 Glu
 Gly
 Arg
 Glo
 Cys
 Ala

 20
 25
 30

 Gly
 Ser
 Glu
 Gly
 Arg
 Gly
 Cys
 Ser

 35
 40
 45
 45

Gly Ser Glu Gly Cys Gln Cys Pro Gly Ser Glu Gly Arg Arg Val Leu 55 Arg Phe Glu Gly Trp His Val Leu Gly Ser Glu Gly Gln Arg Val Pro 65 70 75 80 Gly Ser Glu Gly Arg Pro Leu Gly Pro Leu Gly Leu Leu Arg Glu Gly 90 Leu Pro Asp Pro Trp Leu Glu His Arg Pro Arg Gly Asp Pro Ser Pro 105 Ser Gly Ala Leu Pro Arg Pro Pro Ser Leu Ser Phe Leu Thr Trp Phe 115 120 125 Leu Pro Arg Ser Pro Cys Ile Leu Thr Pro Gly Gly Gly Pro Thr Ser 135 140 Asn Ser Leu Ser Pro Ala Gly Ala Trp Ala Gly Pro Arg Ser Leu Leu 150 155 160 145 Pro Gln Leu Ala Phe Arg Gly Glu Thr Lys Ala Gln Gly Leu Phe Trp 165 170 Phe Ser Ala Gln Thr Trp Gln Leu Pro Gly Gly Gly Arg Arg Ala Pro 190 185 Glu Val Gly Ile 195

<210> 4687

<211> 295

<212> PRT

<213> Homo sapiens

<400> 4687

Met Arg Gly Ser Arg Met Ser Gln Pro Pro Gln Cys Leu Arg Ala 1 5 10 15

Gln Ser Ser Cys Cys His Phe Met Val Lys Leu Leu Asp Asp Gly Thr 20 25 30

Phe Met 11e Pro Gly Glu Lys Val Ala His Thr Scr Leu Asp Ala Leu 35 40 45

Val Thr Phe His Gln Gln Lys Pro Ile Glu Pro Arg Arg Glu Leu Leu 50 55 60

Thr	Gln	Pro	Cys	Arg	Gln	Lys	Asp	Pro	Ala	Asn	Val	Asp	Tyr	Glu	Asp
65					70					75					80
Leu	Phe	Leu	Tyr	Ser	Asn	Ala	Val	Ala	Glu	Glu	Ala	Ala	Cys	Pro	Val
				85					90					95	
Ser	Ala	Pro	Glu	Glu	Ala	Ser	Pro	Lys	Pro	Val	Leu	Cys	His	Gln	Ser
			100					105					110		
Lys	Glu	Arg	Lys	Pro	Ser	Ala	Glu	Met	Asn	Gly	He	Thr	Thr	Lys	Glu
		115					120					125			
Ala	Thr	Ser	Ser	Cys	Pro	Pro	Lys	Ser	Pro	Leu	Gly	Glu	Thr	Arg	Gln
	130					135					140				
Lys	Leu	Trp	Arg	Ser	Leu	Lys	Met	Leu	Pro	Glu	Arg	Gly	Gln	Arg	Val
145					150					155					160
Arg	Gln	Gln	Leu	Lys	Ser	His	Leu	Ala	Thr	Val	Asn	Leu	Ser	Ser	Leu
				165					170					175	
Leu	Asp	Val	Arg	Arg	Ser	Thr	Val	He	Ser	Gly	Pro	Gly	Thr	Gly	Lys
			180					185					190		
Gly	Ser	Gln	Asp	His	Ser	Gly	Asp	Pro	Thr	Ser	Gly	Asp	Arg	Gly	Tyr
		195					200					205			
Thr	Asp	Pro	Cys	Val	Ala	Thr	Ser	Leu	Lys	Ser	Pro	Ser	Gln	Pro	Gln
	210					215					220				
Ala	Pro	Lys	Asp	Arg	Lys	Val	Pro	Thr	Arg	Lys	Ala	Glu	Arg	Ser	Val
225					230					235					240
Ser	Cys	He	Glu	Val	Thr	Pro	Gly	Asp	Arg	Ser	Trp	His	Gln	Met	Val
				245					250					255	
Val	Arg	Ala	Leu	Ser	Ser	Gln	Glu	Ser	Lys	Pro	Glu	His	Gln	Gly	Leu
			260					265					270		
Ala	Glu	Pro	Glu	Asn	Asp	Gln	Leu	Pro	Glu	Glu	Tyr	Gln	Gln	Pro	Pro
		275					280					285			
Pro		Ala	Pro	Gly	Tyr	Cys									
	290					295									

<211> 594

<212> PRT

<213> Homo sapiens

<400	)> 46	886													
Met	Lys	Val	Thr	Leu	Ser	Ala	Leu	Asp	Thr	Ser	Glu	Ser	Ser	Phe	Thr
1				5					10					15	
Pro	Leu	Val	Val	lle	Glu	Leu	Ala	Gln	Asp	Val	Lys	Glu	Glu	Thr	Lys
			20					25					30		
Glu	Trp	Leu	Lys	Asn	Arg	He	He	Ala	Lys	Lys	Lys	Asp	Gly	Asp	Asn
		35					40					45			
Asn	Asp	Asp	Phe	Leu	Thr	Met	Ala	Glu	Cys	Gln	Phe	He	Ile	Lys	His
	50					55					60				
Glu	Leu	Glu	Asn	Leu	Arg	Ala	Lys	Asp	Glu	Lys	Met	Ile	Pro	Gly	Tyr
65					70					75					80
Pro	Gln	Ala	Lys	Leu	Tyr	Pro	Gly	Lys	Ser	Leu	Leu	Arg	Arg	Leu	Leu
				85					90					95	
Thr	Ser	Gly	lle	Val	He	Gln	Va]	Phe	Pro	Leu	His	Asp	Ser	Glu	Ala
			100					105					110		
Leu	Lys	Lys	Leu	Glu	Asp	Thr	Trp	Tyr	Thr	Arg	Phe	Ala	Leu	Lys	Tyr
		115					120					125			
Gln	Pro	lle	Asp	Ser	He	Arg	Gly	Tyr	Phe	Gly	Glu	Thr	lle	Ala	Leu
	130					135					140				
Tyr	Phe	Gly	Phe	Leu	Glu	Tyr	Phe	Thr	Phe	Ala	Leu	lle	Pro	Met	Ala
145					150					155					160
Val	He	Gly	Leu		Tyr	Tyr	Leu	Phe		Trp	Glu	Asp	Tyr		Lys
				165					170					175	
Tyr	Val	lle		Ala	Ser	Phe	Asn		He	Trp	Ser	Thr		He	Leu
			180					185					190		
Glu	Leu	Trp	Lys	Arg	Gly	Cys		Asn	Met	Thr	Tyr		Trp	Gly	Thr
_	_	195			_		200					205			
Leu		Met	Lys	Arg	Lys	Phe	Glu	Glu	Pro	Arg		Gly	Phe	His	Gly
	210					215			-		220				
	Leu	Gly	He	Asn		He	Thr	Gly	Lys		Glu	Pro	Leu	Tyr	
225	Tr.	,		C1	230	•	T 1	т		235	C		D.	131	240
Ser	lyr	Lys	Arg		Leu	Arg	116	lyr		Val	Ser	Leu	Pro		va1
C.		C.	,	245	131	C		т.	250	м .	<b>.</b>	7.7	т.	255	Δ.
Cys	Leu	Cys		ıyr	rne	Ser	Leu		val	Met	Met	116		rne	Asp
			260					265					270		

Met	Glu	Val	Trp	Ala	Leu	Gly	Leu	His	Glu	Asn	Ser	Gly	Ser	Glu	Trp
		275					280					285			
Thr	Ser	Val	Leu	Leu	Tyr	Val	Pro	Ser	lle	11e	Tyr	Ala	He	Val	lle
	290					295					300				
Glu	11e	Met	Asn	Arg	Leu	Tyr	Arg	Tyr	Ala	Ala	Glu	Phe	Leu	Thr	Ser
305					310					315					320
Trp	Glu	Asn	His	Arg	Leu	Glu	Ser	Ala	Tyr	Gln	Asn	His	Leu	lle	Leu
				325					330					335	
Lys	Val	Leu	Val	Phe	Asn	Phe	Leu	Asn	Cys	Phe	Ala	Ser	Leu	Phe	Tyr
			340					345					350		
He	Ala	Phe	Val	Leu	Lys	Asp	Met	Lys	Leu	Leu	Arg	Gln	Ser	Leu	Ala
		355					360					365			
Thr	Leu	Leu	11e	Thr	Ser	Gln	lle	Leu	Asn	Gln	Пе	Met	Glu	Ser	Phe
	370					375					380				
Leu	Pro	Tyr	Trp	Leu	Gln	Arg	Lys	His	Gly	Val	Gln	Val	Lys	Arg	Lys
385					390					395					400
Val	Gln	Ala	Leu	Lys	Ala	Asp	Ile	Asp	Ala	Thr	Leu	Tyr	Glu	Gln	Val
				405					410					415	
Ile	Leu	Glu	Lys	Glu	Met	Gly	Thr	Tyr	Leu	Gly	Thr	Phe	Asp	Asp	Tyr
			420					425		•			430		
Leu	Glu	Leu	Phe	Leú	Gln	Phe	Gly	Tyr	Val	Ser	Leu	Phe	Ser	Cys	Val
		435					440					445			
Tyr	Pro	Leu	Ala	Ala	Ala	Phe	Ala	Val	Leu	Asn	Asn	Phe	Thr	Glu	Val
	450					455					460				
Asn	Ser	Asp	Ala	Leu	Lys	Met	Cys	Arg	Va]	Phe	Lys	Arg	Pro	Phe	Ser
465					470					475					480
Glu	Pro	Ser	Ala		He	Gly	Val	Trp		Leu	Ala	Phe	Glu	Thr	Met
				485					490					495	
Ser	Val	He		Va]	Val	Thr	Asn		Ala	Leu	He	G1 y		Ser	Pro
			500					505					510		
Gln	Val		Ala	Va]	Phe	Pro		Ser	Lys	Ala	Asp		He	Leu	He
		515					520					525			
Val		Ala	Val	Glu	His		Leu	Leu	Ala	Leu	Lys	Phe	He	Leu	Ala
	530					535					540				
	Ala	He	Pro	Asp		Pro	Arg	His	He		Met	Lys	Leu	Ala	
545					550					555					560

Ala Thr

<210> 4689

<211> 120

<212> PRT

<213> Homo sapiens

<400> 4689

Met Phe Leu Ala Pro Leu Leu His Ser Leu Val Leu Pro Gly Leu Phe
1 5 10 15

Leu Ala Pro Pro Leu His Ser Ala Val Leu Pro Gly Met Phe Leu Ala 20 25 30

Pro Pro Leu His Ser Pro Val Leu Pro Gly Met Phe Leu Ala Pro Pro 35 40 45

Leu His Ser Pro Val Leu Ile Ser His Phe Ser Lys Val Gly Phe Arg 50 55 60

Gly Arg Arg Asp Glu Arg Lys Asp Thr Ala Ser His Gly Gly Tyr Gly
65 70 75 80

Ser His Leu Val Met Gly Leu Ser Gly Cys Asp Lys Tyr Thr Lys Pro 85 90 95

His Phe Phe Ser Trp Gly Ala Phe Gly Glu Leu Leu Trp Arg Pro Ser 100 105 110

His Arg Met Leu Glu Asp Gly Phe 115 120

<210> 4690

<211> 461

<212> PRT

<213> Homo sapiens

<400	)> 46	590													
Met	Glu	Arg	Glu	Gly	He	Trp	His	Ser	Thr	Leu	Gly	Glu	Thr	Trp	Glu
1				5					10					15	
Pro	Asn	Asn	Trp	Leu	Glu	Gly	Gln	G1n	Asp	Ser	His	Leu	Ser	Gln	Val
			.20					25					30		
Gly	Val	Thr	His	Lys	Glu	Thr	Phe	Thr	Glu	Met	Arg	Val	Cys	Gly	Gly
		35					40					45			
Asn	Glu	Phe	Glu	Arg	Cys	Ser	Ser	Gln	Asp	Ser	Ile	Leu	Asp	Thr	Gln
	50					55					60				
Gln	Ser	Ile	Pro	Met	Val	Lys	Arg	Pro	His	Asn	Cys	Asn	Ser	His	Gly
65					70					75					80
Glu	Asp	Ala	Thr	Gln	Asn	Ser	Glu	Leu	lle	Lys	Thr	G1n	Arg	Met	Phe
				85					90					95	
Val	Gly	Lys	Lys	lle	Tyr	Glu	Cys	Asn	Gln	Cys	Ser	Lys	Thr	Phe	Ser
			100					105					110		
Gln	Ser	Ser	Ser	Leu	Leu	Lys	His	G1n	Arg	Ile	His		Gly	Glu	Lys
		115					120					125			
Pro		Lys	Cys	Asn	Val		Gly	Lys	His	Phe	Ile	Glu	Arg	Ser	Ser
	130					135					140				
	Thr	Val	His	Gln		He	His	Thr	Gly		Lys	Pro	Tyr	Lys	
145		_			150		~			155					160
Asn	Glu	Cys	Gly		Ala	Phe	Ser	GIn		Met	Asn	Leu	Thr		His
0.1		TI		165	61	61	,	D	170	C1		,	61	175	61
GIn	Arg	Thr		lhr	61y	Glu	Lys		lyr	GIn	Cys	Lys		Cys	61 y
,	4.1	DI	180	,		C	C .	185	т 1	C1	11.	C1	190	7.1	112 .
Lys	Ala	Phe		Lys	Asn	Ser			116	GIN	HIS			11e	H1S
Th	C1	195		Date	Т	Luc	200 Cua		C1.,	Cura	C1	205		Dha	Thr
1111	210	Glu	Lys	110	1 9 1	215	CyS	ASII	oru	Cys	220	Lys	МІа	rne	
Gla		Met	Acn	Lou	Thr		Hic	Gln	Ara	Thr		Thr	Glv	Glu	lve
225	361	Met	nsii	Leu	230	vai	1113	0111	AI g	235	1115	1111	Oly	Olu	240
	Tyr	Glu	Cvs	Asn		Cvs	Glv	lvs	Ala		Ser	Gln	Ser	Met	
0	. , .	O I U	0,3	245	Jiu	0,0	019	2,5	250		OG	GIH	551	255	
l.en	]]e	Val	His		Arg	Ser	His	Thr		Glu	Lvs	Pro	Tvr		Cvs
			260		- 0			265	- 3		_, _		270		, ,

Ser Gln Cys Gly Lys Ala Phe Ser Lys Ser Ser Thr Leu Thr Leu His Gln Arg Asn His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Lys Cys Gly Lys Ser Phe Ser Gln Ser Thr Tyr Leu Ile Glu His Gln Arg Leu His Ser Gly Val Lys Pro Phe Glu Cys Asn Glu Cys Gly Lys Ala Phe Ser Lys Asn Ser Ser Leu Thr Gln His Arg Arg Ile His Thr Gly Glu Lys Pro Tyr Glu Cys Met Val Cys Gly Lys His Phe Thr Gly Arg Ser Ser Leu Thr Val His Gln Val lle His Thr Gly Glu Lys Pro Tyr Glu Cys Asn Glu Cys Gly Lys Ala Phe Ser Gln Ser Ala Tyr Leu Ile Glu His Gln Arg Ile His Thr Gly Glu Lys Pro Tyr Glu Cys Asp Gln Cys Gly Lys Ala Phe Ile Lys Asn Ser Ser Leu Thr Val His Gln Arg Thr His Thr Gly Glu Lys Pro Tyr Gln Cys Asn Glu Cys Gly Lys Ala Phe Ser Arg Ser Thr Asn Leu Thr Arg His Gln Arg Thr His Thr 

<210> 4691

<211> 122

<212> PRT

<213> Homo sapiens

<400> 4691

Met Thr 11e Ala Thr Pro Phe Val Cys Leu Ile Phe Ala His Ser Gln

1 5 10 15

Val Phe Thr Asp Phe 11e Pro Tyr Ser Arg His Leu Gln Met Pro Thr

20 25 30

Ser Tyr Pro Cys Ser Lys Thr His Phe Lys Cys Pro Leu Leu Trp Glu Met Pro Val Val Pro Leu Asp Thr Asn His Leu Ser Ser Leu Glu Pro 50 55 Ile Thr His Ala Pro Thr Pro Ile Ser Asn Ala Tyr Ser Ser Arg Lys 75 Cys Pro Ser Thr His Gly Gln Lys Ser Ser Leu Leu Leu Thr Ala Asn 90 Thr Ala Ala His Gln Ala Trp Ala Leu Ser His Val Leu Ser Ile Thr 100 105 110 Leu Thr Asp Leu Trp Pro Ile Tyr Pro His 115 120 <210> 4692 <211> 123 <212> PRT <213> Homo sapiens <400> 4692 Met Lys Gly Pro Cys Pro His Leu Pro Pro Pro Leu Ser Ser Cys Ile 10

Met Asn Glu Thr Ala Ala Ser Leu Leu Pro Glu Val Leu His Phe Arg 20 25 30 Leu Gly Cys Asn Gly Ser lle Ser Ala Gln Cys Asn Leu Cys Phe Pro 45 Gly Ser Ser Asp Ser Pro Ala Ser Ala Ser Gln Ala Ala Val Asn Thr 55 Gly Trp Ser Ala Val Val Leu Cys Leu Glu Phe Val Pro Ala Val Gly 65 70 75 80 Phe Val Val Leu Leu Thr Ser Arg Met Lys Pro Arg Thr Phe Thr Arg 90 Asn Ile Thr Leu Tyr Gly Cys Thr Thr Val Cys Leu Ser Ile Leu Gln 100 105 110 Val Lys Asp Met Trp Val Val Pro Ser Ala Gly 115 120

<210> 4693 <211> 127 <212> PRT <213> Homo sapiens <400> 4693 Met Asp Leu His His Ser Val Gln Pro Glu Ser Leu Leu Leu Ser Thr 1 5 10 15 Ala Ser Phe Ser Phe Ser Leu Ile Ile Pro Phe Asn Ser Asn Lys Met 25 Thr Trp Pro Ala His Glu Asn Thr Glu Met Arg Pro His Leu Val Ile 35 40 45 Ser Gly Val Leu Arg Gly Thr Leu Val Val Leu Gly Ala Ala Val 55 60 Leu Ser Val Lys Asn Phe Gln Glu Phe Leu lle Ser Cys Phe His Gln 70 75 80 Asp Ser His Asn Leu Leu Leu Leu Pro Leu Ser Ser Gly Phe Val Pro 85 90 Glu His lle Ile Arg Lys Ala Ala Ile lle Thr Ala Tyr Leu Pro Pro 105 Ala Pro Leu His Lys His Pro Pro Ser Pro His Cys Ala Lys Gln 120 125 <210> 4694 <211> 194 <212> PRT

Met Asp Arg Pro Ser Leu Val Arg Ser Arg Lys Gln Ser Pro Arg Leu

1 5 10 15

Ser Ala Ser Ser Gly Asn Phe Ile Pro Pro Tyr His Pro Ser Ser Leu
20 25 30

<213> Homo sapiens

<400> 4694

Gly Lys Val Glu Arg Thr Asn Gly Leu Leu Lys Thr His Leu Thr Lys 40 Leu Ser Leu Gln Leu Lys Lys Asp Trp Thr Ala Leu Leu Pro Phe Ala 50 55 60 Leu Leu Arg Ile Arg Ala Tyr Pro Gln Glu Ala Thr Gly Tyr Ser Pro 70 75 Phe Glu Leu Ser Tyr Gly Cys Thr Phe Leu Leu Gly Pro Asn Leu Leu 85 90 Thr Asp Asn Thr Tyr Ala Asp Met Gln Gln Lys Lys Gln Leu Val Phe 100 105 110 Pro His Leu Ser Leu Thr Ala Ser Phe Leu Pro Ser His Leu Ser Leu 120 Pro Pro Ile Leu Pro Leu Lys Leu Leu Pro Ile Asn Pro Phe Leu Leu 135 140 Met Lys Leu Leu Pro 11e Asn Pro Phe Leu Leu Lys Ala Asn Gly Ser 150 155 160 145 Trp Ile Lys Glu Asn Ser Ser Phe Leu Pro His Arg Leu Ile Leu Ser 170 165 Tyr His Pro Phe Arg Thr Ser Phe Met Trp Val Thr Ser Gln Trp Pro 180 185 190 lle Ser

<210> 4695

<211> 237

<212> PRT

<213> Homo sapiens

<400> 4695

Met Ser Cys Arg His Ser Phe Pro Leu Leu Leu Pro Cys Ser Leu His

1 5 10 15

Ser His Ala Phe Leu Ser Ser Cys His Gly Asp Leu Cys Pro Leu Thr

20 25 30

Ser His Thr Ala Cys Phe Leu Ala Cys Val Pro Pro Gln Ala Gly Gly

		35					40					45			
His	Phe	Gln	Ser	Ser	Phe	Thr	Pro	Cys	Val	Arg	Val	He	Asn	Gln	He
	50					55					60				
Trp	Ala	Pro	Val	Leu	His	Pro	Leu	Cys	His	Asn	Ser	Pro	Cys	Pro	Pro
65					70					75					80
Asn	Leu	Pro	Gly	Thr	Arg	Phe	Gly	Ala	Met	Leu	Asp	Met	Leu	Thr	Asp
				85					90					95	
Arg	Cys	Ser	Thr	Met	Cys	Leu	Leu	Val	Asn	Leu	Ala	Leu	Leu	Tyr	Pro
			100					105					110		
Gly	Ala	Thr	Leu	Phe	Phe	Gln	He	Ser	Met	Ser	Leu	Asp	Val	Ala	Ser
		115					120					125			
His	Trp	Leu	His	Leu	His	Ser	Ser	Val	Val	Arg	Gly	Ser	Glu	Ser	His
	130					135					140				
Lys	Met	lle	Asp	Leu	Ser	Gly	Asn	Pro	Val	Leu	Arg	11e	Tyr	Tyr	Thr
145					150					155					160
Ser	Arg	Pro	Ala	Leu	Phe	Thr	Leu	Cys	Ala	G1 y	Asn	Glu	Leu	Phe	Tyr
				165					170					175	
Cys	Leu	Leu	Tyr	Leu	Phe	His	Phe	Ser	Glu	Gly	Pro	Leu	Val	Gly	Ser
			180					185					190		
Va]	Gly	Leu	Phe	Arg	Met	Gly	Leu	Trp	Val	Thr	Ala	Pro	lle	Ala	Leu
		195					200					205			
Leu	Lys	Ser	Leu	He	Ser	Val	Ile	His	Leu	He	Thr	Ala	Ala	Arg	Asn
	210					215					220				
	Ala	Ala	Leu	Asp		Ala	Asp	Arg	Ala		Lys	Lys			
225					230					235					

<211> 111

<212> PRT

<213> Homo sapiens

<400> 4696

Met Gln Gln Thr Phe Leu Asp Asp Ser Pro His Pro Pro Ser Cys Gln

1 5 5 10 10 15

Ala Ser Ala Pro Leu His Phe Ser Phe Ser Glu Trp Ser Leu Arg Arg

25 20 Leu Pro Asp Leu Leu Leu Pro Gly Pro Ser Gln Ala Tyr Pro Phe Leu 40 45 Ser Ser Leu Pro Ser Phe Thr Pro Ser Leu Ser Met Glu Pro His Ser 55 50 Gly Gln Asp His Leu Leu Trp Pro Ser Glu Gly Phe Arg Thr Ala Gly 70 Gly Cys Ser Pro Arg Pro Leu Glu Trp Phe Val Ile Phe Leu Cys Leu 90 Val Pro Thr Cys Leu Ser Ser Leu Leu Pro Pro His Ala Ser Ser 105 110 100 <210> 4697 <211> 132 <212> PRT <213> Homo sapiens <400> 4697 Met Asn Glu Lys Lys Lys Met Leu Lys Val Ala Arg Glu Lys Gly Gln l 5 10 Val Thr Tyr Lys Gly Lys Pro Ile Arg Leu Met Val Gly Leu Leu Ala 20 25 Asp Thr Leu Gln Ala Ile Arg Asp Leu Gly Pro Met Phe Asn Ile Ser 45 35 Phe Leu Phe Phe Ser Phe Leu Phe Phe Leu Asp Arg Val Ser Leu 55 Cys His Gln Ala Gly Val Gln Trp His Asp Leu Gly Ser Leu Gln Pro 70 75 80 Pro Pro Pro Arg Phe Lys Gln Phe Ser Cys Leu Ser Leu Pro Ser Ser 85 90 Trp Asp Tyr Arg Arg Ala Pro Ser His Leu Ala Asn Phe Cys 11e Phe 105 100

Ser Arg Asp Gly Val Ser Pro Cys Trp Pro Gly Trp Ser Arg Ser Pro 120

115

Asp Phe Met 11e

⟨210⟩ 4698 <211> 665 <212> PRT <213> Homo sapiens <400> 4698 Met Met Lys Thr Phe Phe Ser Thr Gly Gln Gly Asp Thr Glu Ala Phe His Thr Gly Thr Leu Gln Arg Gln Ala Ser His His 11e Gly Asp Phe Cys Phe Gln Lys lle Glu Lys Asp Ile His Gly Phe Gln Phe Gln Trp Lys Glu Asp Glu Thr Asn Asp His Ala Ala Pro Met Thr Glu lle Lys Glu Leu Thr Gly Ser Thr Gly Gln His Asp Gln Arg His Ala Gly Asn Lys His 11e Lys Asp Gln Leu Gly Leu Ser Phe His Ser His Leu Pro Glu Leu His 11e Phe Gln Pro Glu Gly Lys Ile Gly Asn Gln Val Glu Lys Ser Ile Asn Asn Ala Ser Ser Val Ser Thr Ser Gln Arg Ile Cys Cys Arg Pro Lys Thr His lle Ser Asn Lys Tyr Gly Asn Asn Ser Leu His Ser Ser Leu Leu Thr Gln Lys Arg Asn Val His Met Arg Glu Lys Ser Phe Gln Cys lle Glu Ser Gly Lys Ser Phe Asn Cys Ser Ser Leu Leu Lys Lys His Gln 11e Thr His Leu Glu Glu Lys Gln Cys Lys Cys Asp Val Tyr Gly Lys Val Phe Asn Gln Lys Arg Tyr Leu Ala Cys His

Arg	Arg	Ser	His	lle	Asp	Glu	Lys	Pro	Tyr	Lys	Cys	Asn	Glu	Cys	G1 y
	210					215					220				
Lys	]]e	Phe	Gly	His	Asn	Thr	Ser	Leu	Phe	Leu	His	Lys	Ala	Leu	His
225					230					235					240
Thr	Ala	Asp	Lys	Pro	Tyr	Glu	Cys	Glu	Glu	Cys	Asp	Lys	Val	Phe	Ser
				245					250					255	
Arg	Lys	Ser	His	Leu	Glu	Thr	His	Lys	He	He	Tyr	Thr	Gly	Gly	Lys
			260					265					270		
Pro	Tyr	Lys	Cys	Lys	Val	Cys	Asp	Lys	Ala	Phe	Thr	Cys	Asn	Ser	Tyr
		275					280					285			
Leu	Ala	Lys	His	Thr	Ile	Пe	His	Thr	Gly	Glu	Lys	Pro	Tyr	Lys	Cys
	290					295					300				
Asn	Glu	Cys	Gly	Lys	Va]	Phe	Asn	Arg	Leu	Ser	Thr	Leu	Ala	Arg	His
305					310					315					320
Arg	Arg	Leu	His	Thr	Gly	Glu	Lys	Pro	Tyr	Glu	Cys	Glu	Glu	Cys	Glu
				325					330					335	
Lys	Val	Phe	Ser	Arg	Lys	Ser	His	Leu	Glu	Arg	His	Lys	Arg	lle	His
			340					345					350		
Thr	Gly	Glu	Lys	Pro	Tyr	Lys	Cys	Lys	Val	Cys	Asp	Lys	Ala	Phe	Ala
		355					360					365			
Tyr	Asn	Ser	Tyr	Leu	Ala	Lys	His	Ser	He	lle	His	Thr	Gly	Glu	Lys
	370					375					380				
Pro	Tyr	Lys	Cys	Asn	Glu	Cys	Glv	Lys	Val		Asn	Gln	Gln	Ser	Thr
385					390					395					400
Leu	Ala	Arg	His		Arg	Leu	His	Thr		Glu	Gln	Pro	Tyr		Cys
				405					410					415	
G] u	Glu	Cys		Lys	Val	Phe	Arg		Lys	Ser	His	Leu		Arg	His
			420					425					430		
Arg	Arg		His	Thr	Gly	Glu		Pro	Tyr	Lys	Cys		Val	Cys	Asp
		435					440		<b>a</b> ::	0.1		445			
Lys		Phe	Arg	Ser	Asp	Ser	Cys	Leu	Thr	Glu		GIn	Arg	Val	His
<b>m</b> .	450	0.1		13		455			0.1		460			151	0
	Gly	Glu	Lys	Pro		Thr	Cys	Asn	GJu		GIy	Lys	Val	Phe	
465		4 1			470					475	.,,	TP?	A 1	61	480
thr	Lys	Ala	Asn		Ala	Cys	His	His		Leu	H1S	Thr	Λla		Lys
				485					490					495	

Pro Tyr Lys Cys Glu Glu Cys Glu Lys Val Phe Ser Arg Lys Ser His Met Glu Arg His Arg Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Lys Val Cys Asp Lys Ala Phe Arg Arg Asp Ser His Leu Ala Gln His Gln Arg Val His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Thr Phe Arg Gln Thr Ser Ser Leu lle Ile His Arg Arg Leu His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Thr Phe Ser Gln Met Ser Ser Leu Val Tyr His His Arg Leu His Ser Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Val Phe Asn Gln Gln Ala His Leu Ala Gln His Gln Arg Val His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Thr Phe Ser Gln Met Ser Asn Leu Val Tyr His His Arg Leu His Ser Gly Glu Lys Pro 

<210> 4699

<211> 986

<212> PRT

<213> Homo sapiens

<400> 4699

 Met Pro Arg Ala Thr Trp Ala Asn Ser Lys Glu Arg Ser Trp Ala Glu

 1
 5
 10
 15

 Ser Glu Arg Gly Pro Arg Asp Thr Gly Asn Gly Gly Ser Lys Ala Glu
 20
 25
 30

 Arg His Ile Gln Glu Ile Glu Thr Gly Arg Gly Gly Asp Arg Ala Lys
 35
 40
 45

Ala		Arg	Arg	Gln	Arg		Arg	Leu	Arg	Gly		Glu	Arg	Ala	Ser
	50					55					60	<b></b>			
Leu	Gly	Pro	G1y	Arg		Leu	Gly	Asp	Ser		Gly	Thr	Asp	Met	
65					70					75					80
Gly	Ala	Arg	Ala	Gln	Gly	Leu	Ala	Ala	Ala	Met	Thr	Glu	Glu	Ser	Glu
				85					90					95	
Glu	Thr	Val	Leu	Tyr	He	Glu	His	Arg	Tyr	Val	Cys	Ser	Glu	Cys	Asn
			100					105					110		
Gln	Leu	Tyr	Gly	Ser	Leu	Glu	Glu	Val	Leu	Met	His	Gln	Asn	Ser	His
		115					120					125			
Val	Pro	Gln	Gln	His	Phe	Glu	Leu	Val	Gly	Val	Ala	Asp	Pro	Gly	Val
	130					135					140				
Thr	Val	Ala	Thr	Asp	Thr	Ala	Ser	Gly	Thr	Gly	Leu	Tyr	Gln	Thr	Leu
145					150					155					160
Val	Gln	Glu	Ser	Gln	Tyr	Gln	Cys	Leu	Glu	Cys	Gly	Gln	Leu	Leu	Met
				165					170					175	
Ser	Pro	Ser	Gln	Leu	Leu	Glu	His	Gln	Glu	Leu	His	Leu	Lys	Met	Met
			180					185					190		
Ala	Pro	Gln	Glu	Ala	Val	Pro	Ala	Glu	Pro	Ser	Pro	Lys	Ala	Pro	Pro
		195					200					205			
Leu	Ser	Ser	Ser	Thr	lle	His	Tyr	Glu	Cys	Val	Asp	Cys	Lys	Ala	Leu
	210					215					220				
Phe	Ala	Ser	Gln	Glu	Leu	Trp	Leu	Asn	His	Arg	Gln	Thr	His	Leu	Arg
225					230					235					240
Ala	Thr	Pro	Thr	Lys	Ala	Pro	Ala	Pro	Val	Val	Leu	Gly	Ser	Pro	Val
				245					250					255	
Val	Leu	Gly	Pro	Pro	Val	Gly	Gln	Ala	Arg	Val	Ala	Val	Glu	His	Ser
			260					265					270		
Tyr	Arg	Lys	Ala	Glu	Glu	Gly	G1 y	Glu	Gly	Ala	Thr	Val	Pro	Ser	Ala
		275					280					285			
Ala	Ala	Thr	Thr	Thr	G1u	Val	Val	Thr	Glu	Val	Glu	Leu	Leu	Leu	Tyr
	290					295					300				
Lvs		Ser	Glu	Cvs	Ser		Leu	Phe	Gln	Leu	Pro	Ala	Asp	Phe	Leu
305			-	, -	310					315			•		320
	His	Gln	Ala	Thr		Phe	Pro	Ala	Pro		Pro	Glu	Ser	Gln	
				325					330	•				335	

Pro	Ala	Leu	Gln	Gln	Glu	Val	Gln	Ala	Ser	Ser	Pro	Ala	Glu	Val	Pro
			340					345					350		
Val	Ser	Gln	Pro	Asp	Pro	Leu	Pro	Ala	Ser	Asp	His	Ser	Tyr	Glu	Leu
		355					360					365			
Arg	Asn	Gly	Glu	Ala	Ile	Gly	Arg	Asp	Arg	Arg	Gly	Arg	Arg	Ala	Arg
	370					375					380				
Arg	Asn	Asn	Ser	Gly	Glu	Ala	Gly	Gly	Ala	Ala	Thr	Gln	Glu	Leu	Phe
385					390					395					400
Cys	Ser	Ala	Cys	Asp	Gln	Leu	Phe	Leu	Ser	Pro	His	Gln	Leu	Gln	Gln
				405					410					415	
His	Leu	Arg	Ser	His	Arg	Glu	Gly	Va1	Phe	Lys	Cys	Pro	Leu	Cys	Ser
			420					425					430		
Arg	Val	Phe	Pro	Ser	Pro	Ser	Ser	Leu	Asp	Gln	His	Leu	Gly	Asp	His
		435					440					445			
Ser	Ser	Glu	Ser	His	Phe	Leu	Cys	Val	Asp	Cys	Gly	Leu	Ala	Phe	Gly
	450					455					460				
Thr	Glu	Ala	Leu	Leu	Leu	Ala	His	Arg	Arg	Ala	His	Thr	Pro	Asn	Pro
465					470					475					480
Leu	His	Ser	Cys	Pro	Cys	Gly	Lys	Thr	Phe	Val	Asn	Leu	Thr	Lys	Phe
				485					490					495	
Leu	Tyr	His	Arg	Arg	Thr	His	Gly	Val	Gly	Gly	Val	Pro	Leu	Pro	Thr
			500					505					510		
Thr	Pro	Val	Pro	Pro	Glu	Glu	Pro	Val	lle	Gly	Phe	Pro	Glu	Pro	Ala
		515					520					525			
Pro	Ala	Glu	Thr	Gly	Glu	Pro	Glu	Ala	Pro	Glu	Pro	Pro	Val	Ser	Glu
	530					535					540				
Glu	Thr	Ser	Ala	Gly	Pro	Ala	Ala	Pro	Gly	Thr	Tyr	Arg	Cys	Leu	Leu
545					550					555					560
Cys	Ser	Arg	Glu	Phe	Gly	Lys	Ala	Leu	Gln	Leu	Thr	Arg	His	Gln	Arg
				565					570					575	
Phe	Val	His	Arg	Leu	Glu	Arg	Arg	His	Lys	Cys	Ser	He	Cys	Gly	Lys
			580					585					590		
Met	Phe	Lys	Lys	Lys	Ser	His	Val	Arg	Asn	His	Leu	Arg	Thr	His	Thr
		595					600					605			
Gly	Glu	Arg	Pro	Phe	Pro	Cys	Pro	Asp	Cys	Ser	Lys	Pro	Phe	Asn	Ser
	610					615					620				

	Ala	Asn	Leu	Ala		His	Arg	Leu	Thr		Thr	Gly	Glu	Arg	
625 T		C	C1		630	C1		A 3	D)	635	C1	C	C	ть	640
lyr	Arg	Cys	ыу		Cys	Gly	Lys	Ala		Inr	GIN	ser	ser		Leu
				645				0.1	650	131		m		655	0.7
Arg	GIn	His		Leu	Val	His	Ala		His	Phe	Pro	Tyr		Cys	GIn
			660					665					670		
Glu	Cys	Gly	Val	Arg	Phe	His	Arg	Pro	Tyr	Arg	Leu	Leu	Met	His	Arg
		675					680					685			
Tyr	His	His	Thr	Gly	Glu	Tyr	Pro	Tyr	Lys	Cys	Arg	Glu	Cys	Pro	Arg
	690					695					700				
Ser	Phe	Leu	Leu	Arg	Arg	Leu	Leu	Glu	Val	His	Gln	Leu	Val	Val	His
705					710					715					720
Ala	Gly	Arg	Gln	Pro	His	Arg	Cys	Pro	Ser	Cys	Gly	Ala	Ala	Phe	Pro
				725					730					735	
Ser	Ser	Leu	Arg	Leu	Arg	Glu	His	Arg	Cys	Ala	Ala	Ala	Ala	Ala	Gln
			740					745					750		
Ala	Pro	Arg	Arg	Phe	Glu	Cys	Gly	Thr	Cys	Gly	Lys	Lys	Val	Gly	Ser
		755					760					765			
Ala	Ala	Arg	Leu	Gln	Ala	His	Glu	Ala	Ala	His	Ala	Ala	Ala	Gly	Pro
	770					775					780				
Gly	Glu	Val	Leu	Ala	Lys	Glu	Pro	Pro	Ala	Pro	Arg	Ala	Pro	Arg	Ala
785					790					795					800
Thr	Arg	Ala	Pro	Val	Ala	Ser	Pro	Ala	Ala	Leu	Glv	Ser	Thr	Ala	Thr
	0			805					810					815	
Ala	Ser	Pro	Ala		Pro	Ala	Arg	Arg		Glv	Leu	Glu	Cvs		Glu
ni G	001	110	820	,,,,	110	,,,,	111 6	825	-	019	Dea	010	830	001	014
Cvs	Lve	Lvc		Phe	Ser	Thr	Glu			Leu	Gln	Val		Arg	Arg
Cy3	БуЗ	835	Leu	THE	561	1111	840	1111	001	Leu	OIII	845	1113	11.1 6	71.1 6
Ha	Hic		Clv	Clu	Ara	Pro		Dro	Cyc	Dro	Acn		Cly	Lve	Λla
116	850	1111	Gry	01u	MI g	855	1 V I	FIO	Cys	EJQ	-	Cys	ΩŢŸ	rys	V19
DI		C1	C .	TI.	11.2		1	٨	112.	4	860	ı	11.2	ті.	C1
	Arg	Gin	ser	ınr		Leu	Lys	Asp	mis		Arg	Leu	HIS	Inr	
865		В	r) l		870	6.7	17 7	0	<i>(</i> ) 2	875		D)		, ,	880
Glu	Arg	Pro	Phe		Cys	61u	Val	Cys		Lys	Ala	Phe	Ala		Ser
				885					890					895	
	Λ	Lon	Ala	Glu	His	Ara	Arg	Πe	His	Thr	G1v	Glu	Aro	Pro	Tyr

900 905 910 Ser Cys Pro Asp Cys Gly Lys Ser Tyr Arg Ser Phe Ser Asn Leu Trp 925 920 Lys His Arg Lys Thr His Gln Gln His Gln Ala Ala Val Arg Gln 930 935 940 Gln Leu Ala Glu Ala Glu Ala Ala Val Gly Leu Ala Val Met Glu Thr 950 955 Ala Val Glu Ala Leu Pro Leu Val Glu Ala Ile Glu Ile Tyr Pro Leu 965 970 975 Ala Glu Ala Glu Gly Val Gln Ile Ser Gly 980 985

<210> 4700

<211> 441

<212> PRT

<213> Homo sapiens

<400> 4700

 Met
 Glu
 Tyr
 Asp
 Glu
 Lys
 Leu
 Ala
 Arg
 Phe
 Arg
 Gln
 Ala
 His
 Leu
 Asn

 1
 5
 5
 10
 10
 10
 15
 15

 Pro
 Phe
 Asn
 Lys
 Gln
 Ser
 Gly
 Pro
 Arg
 Gln
 His
 Glu
 Gln
 Gly
 Pro
 Gly

 Glu
 Glu
 Val
 Pro
 Asp
 Val
 Thr
 Pro
 Glu
 Glu
 Ala
 Leu
 Pro
 Glu
 Leu
 Pro

 Glu
 Glu
 Pro
 Asp
 Val
 Pro
 Glu
 Arg
 Val
 Met
 Asp
 Leu
 Gly

 Fro
 Gly
 Glu
 Pro
 Gly
 Pro
 Glu
 Arg
 Val
 Met
 Asp
 Leu
 Gly

 Fro
 Gly
 Fro
 Gly
 Fro
 Gly
 Fro
 Gly
 Fro
 Gly
 Fro
 Gly
 Fro
 Gly
 Fro
 Gly
 Fro
 Gly
 Fro

Leu Ser Glu Asp His Phe Ser Arg Pro Val Leu Arg Gln Ala IIe Glu 65 70 75 80

Glu Cys Lys Gln Val 11e Leu Glu Leu Pro Glu Gln Ser Glu Lys Gln 85 90 95

Lys Asp Ala Val Val Arg Leu Ile His Leu Arg Leu Lys Leu Gln Glu 100 105 110

Leu Lys Asp Pro Asn Glu Asp Glu Pro Asn Ile Arg Val Leu Leu Glu 115 120 125

His Arg Phe Tyr Lys Glu Lys Ser Lys Ser Val Lys Gln Thr Cys Asp

	130					135					140				
Lys	Cys	Asn	Thr	Ile	Ile	Trp	Gly	Leu	lle	Gln	Thr	Trp	Tyr	Thr	Cys
145					150					155					160
Thr	G]y	Cys	Tyr	Tyr	Arg	Cys	His	Ser	Lys	Cys	Leu	Asn	Leu	He	Ser
				165					170					175	
Lys	Pro	Cys	Val	Ser	Ser	Lys	Val	Ser	His	Gln	Ala	Glu	Tyr	Glu	Leu
			180					185					190		
Asn	lle	Cys	Pro	Glu	Thr	Gly	Leu	Asp	Ser	Gln	Asp	Tyr	Arg	Cys	Ala
		195					200					205			
G1u	Cys	Arg	Val	Pro	Ile	Ser	Leu	Arg	Gly	Val	Pro	Şer	Glu	Ala	Arg
	210					215					220				
Gln	Cys	Asp	Tyr	Thr	Gly	Gln	Tyr	Tyr	Cys	Ser	His	Cys	His	Trp	Asn
225					230					235					240
Asp	Leu	Ala	Val	He	Pro	Ala	Arg	Val	Val	His	Asn	Trp	Asp	Phe	Glu
				245					250					255	
Pro	Arg	Lys	Val	Ser	Arg	Cys	Ser	Met	Arg	Tyr	Leu	Ala	Leu	Met	Val
			260					265					270		
Ser	Arg	Pro	Val	Leu	Arg	Leu	Arg	Glu	lle	Asn	Pro	Leu	Leu	Phe	Ser
		275					280					285			
Tyr	Val	Glu	Glu	Leu	Val	Glu	Ile	Arg	Lys	Leu	Arg	Gln	Asp	He	Leu
	290				-	295					300				
Leu	Met	Lys	Pro	Tyr	Phe	Ile	Thr	Cys	Arg	Glu	Ala	Met	Glu	Ala	Arg
305					310					315					320
Leu	Leu	Leu	Gln	Leu	Gln	Asp	Arg	Gln	His	Phe	Val	Glu	Asn	Asp	Glu
				325					330					335	
Met	Tyr	Ser	Val	Gln	Asp	Leu	Leu	Asp	Val	His	Ala	Gly	Arg	Leu	Gly
			340					345					350		
Cys	Ser	Leu	Thr	Glu	He	His	Thr	Leu	Phe	Ala	Lys		lle	Lys	Leu
		355					360					365			
Asp	Cys	Glu	Λrg	Cys	Gln		Lys	Gly	Phe	Va]		Glu	Leu	Cys	Arg
	370					375					380				
Glu	Gly	Asp	Val	Leu		Pro	Phe	Asp	Ser		Thr	Ser	Val	Cys	
385					390					395					400
Asp	Cys	Ser	Ala		Phe	His	Arg	Asp		Tyr	Tyr	Asp	Asn	Ser	Thr
				405					410			_		415	an
Thr	Cys	Pro	Lys	Cys	Ala	Arg	Leu	Ser	Leu	Arg	Lys	Gln	Ser	Leu	Phe

Gln Glu Pro Gly Pro Asp Val Glu Ala <210> 4701 <211> 1389 <212> PRT <213> Homo sapiens <400> 4701 Met Lys Gln Leu Gln Pro Gln Pro Pro Pro Lys Met Gly Asp Phe Tyr Asp Pro Glu His Pro Thr Pro Glu Glu Glu Glu Asn Glu Ala Lys Ile Glu Asn Val Gln Lys Thr Gly Phe Ile Lys Gly Pro Met Phe Lys Gly Val Ala Ser Ser Arg Phe Leu Pro Lys Gly Thr Lys Thr Lys Val Asn Leu Glu Glu Gln Gly Arg Gln Lys Val Ser Phe Ser Phe Ser Leu Thr Lys Lys Thr Leu Gln Asn Arg Phe Leu Thr Ala Leu Gly Asn Glu Lys Glń Ser Asp Thr Pro Asn Pro Pro Ala Val Pro Leu Gln Val Asp Ser Thr Pro Lys Met Lys Met Glu Ile Gly Asp Thr Leu Ser Thr Ala Glu Glu Ser Ser Pro Pro Lys Ser Arg Val Glu Leu Gly Lys 11e His Phe Lys Lys His Leu Leu His Val Thr Ser Arg Pro Leu Leu Ala Thr Thr Thr Ala Val Ala Ser Pro Pro Thr His Ala Ala Pro Leu Pro Ala Val 

lle Ala Glu Ser Thr Thr Val Asp Ser Pro Pro Ser Ser Pro Pro Pro

Pro Pro Pro Pro Ala Gln Ala Thr Thr Leu Ser Ser Pro Ala Pro Val

		195				•	200					205			
Thr	Glu	Pro	Val	Ala	Leu	Pro	His	Thr	Pro	Пе	Thr	Val	Leu	Met	Ala
	210					215					220				
Ala	Pro	Val	Pro	Leu	Pro	Val	Asp	Val	Ala	Val	Arg	Ser	Leu	Lys	Glu
225					230					235					240
Pro	Pro	He	He	He	Val	Pro	Glu	Ser	Leu	Glu	Ala	Asp	Thr	Lys	Gln
				245					250					255	
Asp	Thr	He	Ser	Asn	Ser	Leu	Glu	Glu	His	Val	Thr	Gln	Tle	Leu	Asn
			260					265					270		
Glu	Gln	Ala	Asp	Ile	Ser	Ser	Lys	Lys	Glu	Asp	Ser	His	Ile	Gly	Lys
		275					280					285			
Asp	Glu	Glu	lle	Pro	Asp	Ser	Ser	Lys	lle	Ser	Leu	Ser	Cys	Lys	Lys
	290					295					300				
Thr	Gly	Ser	Lys	Lys	Lys	Ser	Ser	Gln	Ser		Gly	He	Phe	Leu	
305					310					315					320
Ser	Glu	Ser	Asp		Asp	Ser	Va]	Arg		Ser	Ser	Ser	Gln		Ser
				325					330					335	
His	Asp	Leu		Phe	Ser	Ala	Ser		Glu	Lys	Glu	Arg	Asp	Phe	Lys
	_	_	340		_		_	345					350		
Lys	Ser		Ala	Pro	Leu	Lys		Glu	Asp	Leu	GIy		Pro	Ser	Arg
C		355					360	T	DI	C	T	365	,	,	61
Ser		Ihr	Asp	Arg	Asp		Lys	lyr	Phe	Ser			Lys	Leu	GIU
Δ	370	ть	Α	Т	V = 1	375	Car	A	Cua	A	380	•	A 20.00	C1	A 20.00
_	ASP	ınr	Arg	ГУГ	390	261.	ser	Arg	Cys	395	ser	Glu	Arg	Glu	400
385	Λκα	Sor	Ara	Sor		Sor	Ara	Sor	Glu		Gly	Sor	Arg	Thr	
AI g	лıg	361	A1 g	405		361	_	261		_	-		_	415	
Len	Ser	Tvr	Ser			Glu							Ser		
Бей	001	1,1	420	8	001	014	8	425		• , 1	.,1	пор	430	пор	
Arg	Tvr	His		Ser	Ser	Pro	Tyr		Glu	Arg	Thr	Arg	Tyr	Ser	Gln
6	- , -	435	6				440	.,, 0		0		445	- , -		
Pro	Tyr		Asp	Asn	Arg	Ala	Arg	G]u	Ser	Ser	Asp	Ser	Glu	Glu	Glu
	450		·			455					460				
Tyr		Lys	Thr	Tyr	Ser	Arg	Arg	Thr	Ser	Ser	His	Ser	Ser	Ser	Tyr
465					470					475					480
Λrσ	Asp	Leu	Arg	Thr	Ser	Ser	Tyr	Ser	Lvs	Ser	Asp	Arg	Asp	Cvs	Lvs

				485					490					495	
Thr	Glu	Thr	Ser	Tyr	Leu	Glu	Met	Glu	Arg	Arg	Gly	Lys	Tyr	Ser	Ser
			500					505					510		
Lys	Leu	Glu	Arg	Glu	Ser	Lys	Arg	Thr	Ser	Glu	Asn	Glu	Ala	He	Lys
		515					520					525			
Arg	Cys	Cys	Ser	Pro	Pro	Asn	Glu	Leu	Gly	Phe	Arg	Arg	G1 y	Ser	Ser
	530					535					540				
Tyr	Ser	Lys	His	Asp	Ser	Ser	Ala	Ser	Arg	Tyr	Lys	Ser	Thr	Leu	Ser
545					550					555					560
Lys	Pro	He	Pro	Lys	Ser	Asp	Lys	Phe	Lys	Asn	Ser	Phe	Cys	Cys	Thr
				565					570					575	
Glu	Leu	Asn	Glu	Glu	lle	Lys	Gln	Ser	His	Ser	Phe	Ser	Leu	Gln	Thr
			580					585					590		
Pro	Cys	Ser	Lys	Gly	Ser	Glu	Leu	Arg	Met	He	Asn	Lys	Asn	Pro	Glu
		595					600					605			
Arg	Glu	Lys	Ala	61 y	Ser	Pro	Ala	Pro	Ser	Asn	Arg	Leu	Asn	Asp	Ser
	610					615					620				
Pro	Thr	Leu	Lys	Lys	Leu	Asp	Glu	Leu	Pro	Ile	Phe	Lys	Ser	Glu	Phe
625					630					635					640
Ile	Thr	His	Asp	Ser	His	Asp	Ser	Ile	Lys	Glu	Leu	Asp	Ser	Leu	Ser
				645					650					655	
Lys	Val	Lys	Asn	Asp	Gln	Leu	Arg	Ser	Phe	Cys	Pro	lle	Glu	Leu	Asn
			660					665					670		
He	Asn	Gly	Ser	Pro	Gly	Ala	Glu	Ser	Asp	Leu	Ala	Thr	Phe	Cys	Thr
		675					680					685			
Ser	Lys	Thr	Asp	Ala	Val	Leu	Met	Thr	Ser	Asp	Asp	Ser	Val	Thr	Gly
	690					695					700				
Ser	Glu	Leu	Ser	Pro	Leu	Val	Lys	Ala	Cys	Met	Leu	Ser	Ser	Asn	Gly
705					710					715					720
Phe	Gln	Asn	He	Ser	Arg	Cys	Lys	Glu		Λsp	Leu	Asp	Λsp		Cys
				725					730					735	
Met	Leu	His	Lys	Lys	Ser	Glu	Ser	Pro	Phe	Arg	Glu	Thr	Glu	Pro	Leu
			740					745					750		
Val	Ser	Pro	His	Gln	Asp	Lys	Leu	Met	Ser	Met	Pro	Val	Met	Thr	Val
		755					760					765			
Asp	Tyr	Ser	Lys	Thr	Val	Val	Lys	Glu	Pro	Val	Asp	Thr	Arg	Val	Ser

	770					775					780				
Cys	Cys	Lys	Thr	Lys	Asp	Ser	Asp	He	Tyr	Cys	Thr	Leu	Asn	Asp	Ser
785					790					795					800
Asn	Pro	Ser	Leu	Cys	Asn	Ser	Glu	Ala	Glu	Asn	He	Glu	Pro	Ser	Val
				805					810					815	
Met	Lys	Пе	Ser	Ser	Asn	Ser	Phe	Met	Asn	Val	His	Leu	Glu	Ser	Lys
			820					825					830		
Pro	Val	He	Cys	Asp	Ser	Arg	Asn	Leu	Thr	Asp	His	Ser	Lys	Phe	Ala
		835					840					845			
Cys	Glu	Glu	Tyr	Lys	Gln	Ser	Ile	Gly	Ser	Thr	Ser	Ser	Ala	Ser	Val
	850					855					860				
Asn	His	Phe	Asp	Asp	Leu	Tyr	Gln	Pro	He	Gly	Ser	Ser	Gly	He	Ala
865					870					875					880
Ser	Ser	Leu	Gln	Ser	Leu	Pro	Pro	Gly	He	Lys	Val	Asp	Ser	Leu	Thr
				885					890					895	
Leu	Leu	Lys	Cys	Gly	Glu	Asn	Thr	Ser	Pro	Val	Leu	Asp	Ala	Val	Leu
			900					905					910		
Lys	Ser	Lys	Lys	Ser	Ser	Glu	Phe	Leu	·Lys	His	Ala	Gly	Lys	Glu	Thr
		915					920					925			
11e	Val	Glu	Val	Gly	Ser	Asp	Leu	Pro	Asp	Ser	Gly	Lys	Gly	Phe	Ala
	930					935					940				
Ser	Arg	Glu	Asn	Arg	Arg	Asn	Asn	G1 y	Leu	Ser	Gly	Lys	Cys	Leu	Gln
945					950					955					960
Glu	Ala	Gln	Glu	Glu	Gly	Asn	Ser	lle	Leu	Pro	Glu	Arg	Arg	Gly	Arg
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Pro	Glu	He	Ser	Leu	Asp	Glu	Arg	Gly	Glu	Gly	Gly	His	Val	His	Thr
			980					985					990		
Ser	Asp	Asp	Ser	Glu	Val	Val	Phe	Ser	Ser	Cys	Asp	Leu	Asn	Leu	Thr
		995					1000					1005			
		Asp	Ser	Asp			Thr	Tyr	Λla			Cys	Asp	Ser	Ser
	1010					1015	_				1020		_	_	
-		Ala	Pro			Val	Ser	Thr			Glu	Asp	Tyr		Gly
102		0.3	-		1030			6		1035	0.7		T.		1040
Ser	Ser	Glu			Asn	Asp	Glu		Asp	Ser	Glu	Asp			Ser
		c		1045	D		4		1050	Cl	C	V 1		1055	V 1
Asn	Asn	Sor	Ser	HP	Pro	Aro	Asn	Aro	Len	uln	Ser	val	val	val	Val

106	0	1	065		1070
Pro Lys Asn Se	r Thr Leu	Pro Met	Glu Glu T	hr Ser Pro	Cys Ser Ser
1075		1080		1085	
Arg Ser Ser Gl	n Ser Tyr	Arg His	Tyr Ser A	sp His Trp	Glu Asp Glu
1090		1095		1100	
Arg Leu Glu Se	er Arg Arg	g His Leu	Tyr Glu G	lu Lys Phe	Glu Ser Ile
1105	1110	)	11	15	1120
Ala Ser Lys Al	a Cys Pro	Gln Thr	Asp Lys P	he Phe Leu	His Lys Gly
	1125		1130		1135
Thr Glu Lys As	n Pro Glu	ı Ile Ser	Phe Thr G	ln Ser Ser	Arg Lys Gln
114	0	1	145		1150
lle Asp Asn A	g Leu Pro	Glu Leu	Ser His P	ro Gln Ser	Asp Gly Val
1155		1160		1165	
Asp Ser Thr Se	er His Thu	Asp Val	Lys Ser A	sp Pro Leu	Gly His Pro
1170		1175		1180	
Asn Ser Glu G	u Thr Val	Lys Ala	Lys Ile P	Pro Ser Arg	Gln Gln Glu
1185	1190	)	11	95	1200
	. T C.	Ser Asn	Phe Glu A	en Phe Pro	Asn Lys Ser
Glu Leu Pro I	e ryr sei	oci nap	7 01 4	isp The 110	non Eyo bei
Glu Leu Pro I.	1205	ост пар	1210	isp The 110	1215
Trp Gln Gln Tl	1205		1210		1215
	1205 or Thr Pho	e Gln Asn	1210	Asp Ser Arg	1215
Trp Gln Gln Tl	1205 nr Thr Phe 20	e Gln Asn 1	1210 Arg Pro A 225	Asp Ser Arg	1215 Leu Gly Lys 1230
Trp Gln Gln Tl	1205 nr Thr Phe 20	e Gln Asn 1	1210 Arg Pro A 225	Asp Ser Arg	1215 Leu Gly Lys 1230 Val Asp Gly
Trp Gln Gln Tl 12: Thr Glu Leu Se	1205 nr Thr Pho 20 er Phe Sei	e Gln Asn l Ser Ser 1240	1210 Arg Pro A 225 Cys Glu I	Asp Ser Arg He Pro His 1245	1215 Leu Gly Lys 1230 Val Asp Gly
Trp Gln Gln Tl 122 Thr Glu Leu Sc 1235	1205 nr Thr Pho 20 er Phe Sei	e Gln Asn l Ser Ser 1240	1210 Arg Pro A 225 Cys Glu I	Asp Ser Arg He Pro His 1245	1215 Leu Gly Lys 1230 Val Asp Gly
Trp Gln Gln Tl 12: Thr Glu Leu Sc 1235 Leu His Ser Sc	1205 nr Thr Pho 20 er Phe Ser er Glu Glu	e Gln Asn l Ser Ser 1240 J Leu Arg	1210 Arg Pro A 225 Cys Glu I Asn Leu G	Asp Ser Arg The Pro His 1245 Gly Trp Asp 1260	1215 Leu Gly Lys 1230 Val Asp Gly Phe Ser Gln
Trp Gln Gln Tl 123 Thr Glu Leu Se 1235 Leu His Ser Se 1250	1205  or Thr Pho cr Phe Ser  er Glu Glu  er Thr Thr	e Gln Asn l Ser Ser 1240 J Leu Arg	1210 Arg Pro A 225 Cys Glu I Asn Leu G	Asp Ser Arg The Pro His 1245 Gly Trp Asp 1260	1215 Leu Gly Lys 1230 Val Asp Gly Phe Ser Gln Tyr Gly Ala
Trp Gln Gln Tl 122 Thr Glu Leu Sc 1235 Leu His Ser Sc 1250 Glu Lys Pro Sc	1205 or Thr Pho er Phe Ser er Glu Glu er Thr Thr 1270	e Gln Asn l Ser Ser 1240 u Leu Arg 1255 Tyr Gln	1210 Arg Pro A 225 Cys Glu I Asn Leu G Gln Pro A	Asp Ser Arg 1e Pro His 1245 Gly Trp Asp 1260 Asp Ser Ser 275	1215 Leu Gly Lys 1230 Val Asp Gly Phe Ser Gln Tyr Gly Ala 1280
Trp Gln Gln Tl 123 Thr Glu Leu Sc 1235 Leu His Ser Sc 1250 Glu Lys Pro Sc 1265	1205 or Thr Pho er Phe Ser er Glu Glu er Thr Thr 1270	e Gln Asn l Ser Ser 1240 u Leu Arg 1255 Tyr Gln	1210 Arg Pro A 225 Cys Glu I Asn Leu G Gln Pro A	Asp Ser Arg 1e Pro His 1245 Gly Trp Asp 1260 Asp Ser Ser 275	1215 Leu Gly Lys 1230 Val Asp Gly Phe Ser Gln Tyr Gly Ala 1280
Trp Gln Gln Tl 123 Thr Glu Leu Sc 1235 Leu His Ser Sc 1250 Glu Lys Pro Sc 1265	1205 ar Thr Pho 20 er Phe Ser er Glu Glu er Thr Thr 1270 is Lys Tyr 1285	e Gln Asn l Ser Ser 1240 u Leu Arg 1255 r Tyr Gln O	1210 Arg Pro A 225 Cys Glu I Asn Leu G Gln Pro A 12 Asn Ala G 1290	Asp Ser Arg 1e Pro His 1245 Gly Trp Asp 1260 Asp Ser Ser 275 Glu Gln Tyr	1215 Leu Gly Lys 1230 Val Asp Gly Phe Ser Gln Tyr Gly Ala 1280 Gly Gly Thr 1295
Trp Gln Gln Tl 122 Thr Glu Leu Sc 1235 Leu His Ser Sc 1250 Glu Lys Pro Sc 1265 Cys Gly Gly H	1205  ar Thr Pho 20  er Phe Ser er Glu Glu er Thr Thr 1270 is Lys Tyr 1285 cp Gln Gly	e Gln Asn  1  Ser Ser  1240  Leu Arg  1255  Tyr Gln  Gln Gln	1210 Arg Pro A 225 Cys Glu I Asn Leu G Gln Pro A 12 Asn Ala G 1290	Asp Ser Arg 1e Pro His 1245 Gly Trp Asp 1260 Asp Ser Ser 275 Glu Gln Tyr	1215 Leu Gly Lys 1230 Val Asp Gly Phe Ser Gln Tyr Gly Ala 1280 Gly Gly Thr 1295
Trp Gln Gln Tl 123 Thr Glu Leu Se 1235 Leu His Ser Se 1250 Glu Lys Pro Se 1265 Cys Gly Gly H Arg Asp Tyr Tr	1205  ar Thr Pho 20  er Phe Ser er Glu Glu er Thr Thr 1270 is Lys Tyr 1285  ap Gln Gly	e Gln Asn  1 Ser Ser 1240 1 Leu Arg 1255 Tyr Gln Gln Gln V Asn Gly	1210 Arg Pro A 225 Cys Glu I Asn Leu G Gln Pro A 12 Asn Ala G 1290 Tyr Trp A 305	Asp Ser Arg The Pro His 1245 Gly Trp Asp 1260 Asp Ser Ser 275 Glu Gln Tyr	Leu Gly Lys 1230 Val Asp Gly Phe Ser Gln Tyr Gly Ala 1280 Gly Gly Thr 1295 Ser Gly Arg
Trp Gln Gln Tl 122 Thr Glu Leu Sc 1235 Leu His Ser Sc 1250 Glu Lys Pro Sc 1265 Cys Gly Gly H Arg Asp Tyr Ti	1205  ar Thr Pho 20  er Phe Ser er Glu Glu er Thr Thr 1270 is Lys Tyr 1285  ap Gln Gly	e Gln Asn  1 Ser Ser 1240 1 Leu Arg 1255 Tyr Gln Gln Gln V Asn Gly	1210 Arg Pro A 225 Cys Glu I Asn Leu G Gln Pro A 12 Asn Ala G 1290 Tyr Trp A 305	Asp Ser Arg The Pro His 1245 Gly Trp Asp 1260 Asp Ser Ser 275 Glu Gln Tyr	1215 Leu Gly Lys 1230 Val Asp Gly Phe Ser Gln Tyr Gly Ala 1280 Gly Gly Thr 1295 Ser Gly Arg 1310 Gln Val Pro
Trp Gln Gln Tl 122 Thr Glu Leu Sc 1235 Leu His Ser Sc 1250 Glu Lys Pro Sc 1265 Cys Gly Gly H Arg Asp Tyr T: 130 Pro Pro Gly Tl	1205 ar Thr Pho 20 er Phe Ser er Glu Glu er Thr Thr 1270 is Lys Tyr 1285 ap Gln Gly onr Gly Va	e Gln Asn  1 Ser Ser 1240 1 Leu Arg 1255 Tyr Gln C Gln Gln V Asn Gly I Val Tyr 1320	1210 Arg Pro A 225 Cys Glu I Asn Leu G Gln Pro A 12 Asn Ala G 1290 Tyr Trp A 305 Asp Arg T	Asp Ser Arg The Pro His 1245 Gly Trp Asp 1260 Asp Ser Ser 275 Glu Gln Tyr Asp Pro Arg Thr Gln Gly 1325	1215 Leu Gly Lys 1230 Val Asp Gly Phe Ser Gln Tyr Gly Ala 1280 Gly Gly Thr 1295 Ser Gly Arg 1310 Gln Val Pro
Trp Gln Gln Tl 123 Thr Glu Leu Sc 1235 Leu His Ser Sc 1250 Glu Lys Pro Sc 1265 Cys Gly Gly H Arg Asp Tyr T: 130 Pro Pro Gly Tl 1315	1205 ar Thr Pho 20 er Phe Ser er Glu Glu er Thr Thr 1270 is Lys Tyr 1285 ap Gln Gly onr Gly Va	e Gln Asn  1 Ser Ser 1240 1 Leu Arg 1255 Tyr Gln C Gln Gln V Asn Gly I Val Tyr 1320	1210 Arg Pro A 225 Cys Glu I Asn Leu G Gln Pro A 12 Asn Ala G 1290 Tyr Trp A 305 Asp Arg T	Asp Ser Arg The Pro His 1245 Gly Trp Asp 1260 Asp Ser Ser 275 Glu Gln Tyr Asp Pro Arg Thr Gln Gly 1325	1215 Leu Gly Lys 1230 Val Asp Gly Phe Ser Gln Tyr Gly Ala 1280 Gly Gly Thr 1295 Ser Gly Arg 1310 Gln Val Pro

 1345
 1350
 1355
 1360

 Gln Lys Asp Lys Gly Ser Val Gln Ala Pro Glu Ile Ser Ser Asn Ser
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 Ile Lys Asp Thr Leu Ala Val Asn Glu Lys Lys Asp Phe
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<211> 134

<212> PRT

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<400> 4702

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Gln Ser Thr Ala Asp Tyr Gly Met Arg Thr Ser Gly Pro Val Glu Ser 35 40 45

Gly Leu Ser Ala Asp Ser Leu Gln Leu Leu Cys Ser Tyr Ala Ala Ile 50 55 60

Lys Asn Ser Ala Glu Leu Leu Met Val Gly Pro Gln Gly Met Arg Pro 65 70 75 80

Ala Thr Gly Gln Asp Leu Leu Cys Arg Pro Cys Leu Ser His Asp Pro
85 90 95

Pro Gly Pro Leu His Pro Pro Arg Gly Leu Ser Gly Ser Ser Ser Leu 100 105 110

Leu Ile Ser Pro Arg Leu Gln Asp Val Ser Leu Gln Leu Val His Pro 115 120 125

Thr Pro Glu Glu Ser Phe

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			20					25					30		
Trp	Arg	Pro	Gln	Glu	Arg	Pro	Thr	Asp	Arg	Asn	Gln	Gly	Glu	Met	Ala
		35					40					45			
His	Thr	Cys	Arg	Gly	Thr	Ile	Asn	Leu	Ser	Thr	Ala	His	He	Asp	Thr
	50					55					60				
Glu	Asp	Ser	Cys	Gly	He	Leu	Leu	Thr	Ser	Gly	Ala	Arg	Ser	Tyr	His
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Leu	Lys	Ala	Ser	Ser	Glu	Val	Asp	Arg	Gln	Gln	Trp	He	Thr	Ala	Leu
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Glu	Leu	Ala	Lys	Ala	Lys	Ala	Val	Arg	Val	Met	Asn	Thr	His	Ser	Asp
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Asp	Ser	Gly	Asp	Asp	Asp	Glu	Ala	Thr	Thr	Pro	Ala	Asp	Lys	Ser	Glu
		115					120					125			
Leu	His	His	Thr	Leu	Lys	Asn	Leu	Ser	Leu	Lys	Leu	Asp	Asp	Leu	Ser
	130					135					140				
Thr	Cys	Asn	Asp	Leu	He	Ala	Lys	His	Gly	Ala	Ala	Leu	Gln	Arg	Ser
145					150					155					160
Leu	Thr	Glu	Leu	Asp	Gly	Leu	Lys	lle	Pro	Ser	Glu	Ser	Gly	Glu	Lys
				165					170					175	٠
Leu	Lys	Val	Val	Asn	G]u	Arg	Ala	Thr	Leu	Phe	Arg	He	Thr	Ser	Asn
			180					185					190		
Ala	Met		Asn	Ala	Cys	Arg	Asp	Phe	Leu	Glu	Leu		Glu	He	His
		195					200					205			
Ser		Lys	Trp	Gln	Arg		Leu	G1n	Tyr	Glu		Glu	Gln	Arg	Val
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	Leu	Glu	Glu	Thr		Glu	Gln	Leu	Ala		Gln	His	Asn	Ser	
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Glu Arg Ala Phe His Ser Ala Pro Gly Arg Pro Ala Asn Pro Ser Lys

Ser	Phe	lle	Glu	Gly	Ser	Leu	Leu	Thr	Pro	Lys	Gly	Glu	Asp	Ser	Glu
			260					265					270		
Glu	Asp	Glu	Asp	Thr	Glu	Tyr	Phe	Asp	Ala	Met	Glu	Asp	Ser	Thr	Ser
		275					280					285			
Phe	He	Thr	Val	11e	Thr	Glu	Ala	Lys	Glu	Asp	Ser	Arg	Lys	Ala	Glu
	290					295					300				
Gly	Ser	Thr	Gly	Thr	Ser	Ser	Val	Asp	Trp	Ser	Ser	Ala	Asp	Asn	Val
305					310					315					320
Leu	Asp	Gly	Ala	Ser	Leu	Val	Pro	Lys	Gly	Ser	Ser	Lys	Val	Lys	Arg
				325					330					335	
Arg	Val	Arg		Pro	Asn	Lys	Pro		Tyr	Ser	Leu	Asn		Trp	Ser
			340					345					350		
lle	Met		Asn	Cys	lle	Gly		Glu	Leu	Ser	Arg		Pro	Met	Pro
		355					360			0.1		365	mı	0.1	
Val		Phe	Asn	GIu	Pro	Leu	Ser	Met	Leu	GIn		Leu	Thr	Glu	Asp
1	370	Т	112.	112.	1	375	Λ	1	A 1 -	V - 1	380	Cons	ть	C	C
	Glu	lyr	HIS	HIS		Leu	Asp	Lys	Ala		HIS	Lys	Inr	Ser	
385 Vol.	C1	C1n	Mot	Cva	390	Vo.1	110	Alo	Dho	395	Vol	Con	Con	Two	400
vai	Glu	om	мет	405	Leu	Va]	мта	мта	410	261	vai	261	Sei	415	261
Thr	Thr	Val	His		He	Ala	Lvs	Pro		Asn	Pro	Met	Len		Glu
1111		, u	420	8	110	711.0	1393	425	1110	11511	110	me c	430	01)	oru
Thr	Phe	Glu		Asp	Arg	Leu	Asp		Met	Glv	l.eu	Arg		Leu	Cvs
		435			&		440			,		445			- 2 - 3
Glu	Gln	Val	Ser	His	His	Pro		Ser	Ala	Ala	His	Tyr	Val	Phe	Ser
	450					455					460				
Lys	His	Gly	Trp	Ser	Leu	Trp	Gln	Glu	He	Thr	He	Ser	Ser	Lys	Phe
465					470					475					480
Arg	Gly	Lys	Tyr	11e	Ser	11e	Met	Pro	Leu	Gly	Ala	Пe	His	Leu	Glu
				485					490					495	
Phe	Gln	Ala	Ser	G1 y	Asn	His	Tyr	Val	Trp	Arg	Lys	Ser	Thr	Ser	Thr
			500					505					510		
Va]	His	Asn	lle	11e	Val	G1y	Lys	Leu	Trp	He	Asp	Gln	Ser	Gly	Asp
		515					520					525			
lle	Glu	11e	Val	Asn	His	Lys	Thr	Asn	Asp	Arg	Cys	Gln	Leu	Lys	Phe
	530					535					540				

Leu Pro Tyr Ser Tyr Phe Ser Lys Glu Ala Ala Arg Lys Val Thr Gly 550 555 545 Val Val Ser Asp Ser Gln Gly Lys Ala His Tyr Val Leu Ser Gly Ser 570 575 565 Trp Asp Glu Gln Met Glu Cys Ser Lys Val Met His Ser Ser Pro Ser 580 585 Ser Pro Ser Ser Asp Gly Lys Gln Lys Thr Val Tyr Gln Thr Leu Ser 600 Ala Lys Leu Leu Trp Lys Lys Tyr Pro Leu Pro Glu Asn Ala Glu Asn 615 610 Met Tyr Tyr Phe Ser Glu Leu Ala Leu Thr Leu Asn Glu His Glu Glu 630 635 Gly Val Ala Pro Thr Asp Ser Arg Leu Arg Pro Asp Gln Arg Leu Met 650 645 655 Glu Lys Gly Arg Trp Asp Glu Ala Asn Thr Glu Lys Gln Arg Leu Glu 660 665 670 Glu Lys Gln Arg Leu Ser Arg Arg Arg Arg Leu Glu Ala Cys Gly Pro . 680 685 Gly Ser Ser Cys Ser Ser Glu Glu Glu Lys Glu Ala Asp Ala Tyr Thr 695 690 Pro Leu Trp Phe Glu Lys Arg Leu Asp Pro Leu Thr Gly Glu Met Ala 715 710 Cys Val Tyr Lys Gly Gly Tyr Trp Glu Ala Lys Glu Lys Gln Asp Trp 725 735 730 His Met Cys Pro Asn Ile Phe 740

<210> 4704

<211> 577

<212> PRT

<213> Homo sapiens

<400> 4704

Met Glu Asn Glu Arg Thr Lys Asp Leu Ile Ile Glu Gln Arg Phe His

1 5 10 15

Arg	Thr	Ile	lle	Gly	Gln	Lys	Gly	Glu	Arg	lle	Arg	Glu	He	Arg	Asp
			20					25					30		
Lys	Phe		Glu	Val	He	He		Phe	Pro	Asp	Pro		Gln	Lys	Ser
		35					40			0.1		45		0	m
Asp		Va.	GIn	Leu	Arg		Pro	Lys	Asn	Glu		Glu	Lys	Cys	lhr
	50					55					60			_	_
-	Tyr	Met	Gln	Lys		Val	Ala	Asp	Leu		Glu	Asn	Ser	Tyr	
65					70					75					80
Ile	Ser	Val	Pro	He	Phe	Lys	Gln	Phe		Lys	Asn	He	lle	Gly	Lys
				85					90					95	
Gly	Gly	Ala	Asn	He	Lys	Lys	He	Arg	Glu	Glu	Ser	Asn	Thr	Lys	He
			100					105					110		
Asp	Leu	Pro	Ala	Glu	Asn	Ser	Asn	Ser	Glu	Thr	He	He	He	Thr	Gly
		115					120					125			
Lys	Arg	Ala	Asn	Cys	Glu	Ala	Ala	Arg	Ser	Arg	lle	Leu	Ser	11e	Gln
	130					135					140				
Lys	Asp	Leu	Ala	Asn	Ile	Ala	Glu	Val	Glu	Val	Ser	lle	Pro	Ala	Lys
145					150					155					160
Leu	His	Asn	Ser	Leu	Ile	Gly	Thr	Lys	Gly	Arg	Leu	Ile	Arg	Ser	He
				165					170					175	
Met	Glu	Glu	Cys	Gly	Gly	Val	His	lle	His	Phe	Pro	Val	Glu	Gly	Ser
			180					185					190		
Gly	Ser	Asp	Thr	Val	Val	He	Arg	Gly	Pro	Ser	Ser	Asp	Val	Glu	Lys
		195					200					205			
Ala	Lys	Lys	Gln	Leu	Leu	His	Leu	Ala	Glu	G] u	Lys	Gln	Thr	Lys	Ser
	210					215					220				
Phe	Thr	Val	Asp	He	Arg	Ala	Lys	Pro	Glu	Tyr	His	Lys	Phe	Leu	He
225					230					235					240
G1 y	Lys	Gly	Gly	Gly	Lys	He	Arg	Lys	Val	Arg	Asp	Ser	Thr	G] y	Ala
				245					250					255	
Arg	Val	He	Phe	Pro	Ala	Ala	Glu	Asp	Lys	Asp	Gln	Asp	Leu	Пe	Thr
			260					265					270		
11e	He	Gly	Lys	Glu	Asp	Ala	Val	Arg	Glu	Ala	Gln	Lys	G] u	Leu	Glu
		275					280					285			
Ala	Leu	11e	Gln	Asn	Leu	Asp		Val	Val	Glu	Asp		Met	Leu	Val
	290					295					300				

Asp	Pro	Lys	His	His	Arg	His	Phe	Val	Ile	Arg	Arg	Gly	Gln	Val	Leu
305					310					315					320
Arg	G1u	lle	Ala	Glu	Glu	Tyr	Gly	Gly	Val	Met	Val	Ser	Phe	Pro	Arg
				325					330					335	
Ser	Gly	Thr	Gln	Ser	Asp	Lys	Val	Thr	Leu	Lys	Gly	Ala	Lys	Asp	Cys
			340					345					350		
Val	Glu	Ala	Ala	Lys	Lys	Arg	Ile	Gln	Glu	He	He	Glu	Asp	Leu	Glu
		355					360					365			
Ala	Gln	Val	Thr	Leu	Glu	Cys	Ala	Ile	Pro	Gln	Lys	Phe	His	Arg	Ser
	370					375					380				
Val	Met	Gly	Pro	Lys	Gly	Ser	Arg	He	Gln	Gln	Ile	Thr	Arg	Asp	Phe
385					390					395					400
Ser	Val	Gln	He	Lys	Phe	Pro	Asp	Arg	Glu	Glu	Asn	Ala	Val	His	Ser
				405					410					415	
Thr	Glu	Pro	Val	Val	Gln	Glu	Asn	Gly	Asp	Glu	Ala	Gly	Glu	Gly	Arg
			420					425					430		
Glu	Ala	Lys	Asp	Cys	Asp	Pro	Gly	Ser	Pro	Arg	Arg	Cys	Asp	Ile	lle
		435					440					445			
He	Ile	Ser	Gly	Arg	Lys	Glu	Lys	Cys	Glu	Ala	Ala	Lys	Glu	Ala	Leu
	450					455					460				
Ġlu	Ala	Leu	Val	Pro	Val	Thr	Ile	Glu	Val	Glu	Val	Pro	Phe	Asn	Leu
465					470					475					480
His	Arg	Tyr	Val	He	Gly	Gln	Lys	Gly	Ser	Gly	He	Arg	Lys	Met	Met
				485					490					495	
Asp	Glu	Phe	Glu	Val	Asp	Pro	Phe	Pro	G1 y	Arg	Pro	Cys	His	Arg	Ser
			500					505					510		
Gly	Leu	Ser	His	Pro	Leu	Pro	Ser	Ala	Ser	Val	Leu	Ser	Gln	Leu	Pro
		515		•			520					525			
Val	Asp	Ser	Ala	Ser	Ser	Cys	Ser	Asp	Trp	Ala	Leu	Thr	Ser	Leu	His
	530					535					540				
Gly	Gly	Trp	Pro	Ser	Leu	Ser	Pro	Leu	Leu	Gly	Pro	Arg	Ala	Asn	Gly
545					550					555					560
Leu	Phe	Pro	Val	Leu	Trp	Gly	Pro	Glu	Arg	Gln	Val	Ser	Pro	Leu	Phe
				565					570					575	

Thr

<211> 121 <212> PRT <213> Homo sapiens <400> 4705 Met Val Ala Asp Leu Ile Asn Val Gln Ile Thr Ser Gly Gln Ala Gln 10 1 Ser Ala Leu Phe Pro Pro Ser Pro Gln Leu Trp Leu Met Ser Ser Pro 25 Phe Leu Pro Trp Pro Arg His Gly Glu Ser Ser Ile Gly Lys Ala Lys 35 45 40 Val Ser Ser Arg Lys Thr Glu Gly Cys Ala Ser Pro Leu Glu Pro Leu 50 60 55 Pro Ser Trp Pro Gly Leu Leu Pro Val Ser Val Lys Lys Lys Lys 70 75 Lys Lys Lys Ser Asp Met Gln Leu Leu Ser Thr Cys Cys Met Ser Ser 85 90 Met Val Arg Asp Ala Glu Lys Tyr Lys Ala Val Ser Gly Gly Gln Val 105 110 Glu Tyr Gln Leu His His Leu Lys Thr 115 120 <210> 4706 <211> 202 <212> PRT <213> Homo sapiens

Met Arg Trp Gly Leu Val Pro Ser Trp Val Lys Glu Pro Lys Lys Phe

Thr Leu Leu lle Asn Ala Arg Ser Glu Thr Val Arg Asp Lys Pro Ala

25

10

30

<210> 4705

<400> 4706

20

Phe Lys Asn Ala Met Lys Arg Arg Val Leu Val Pro Ser Asp Gly Tyr Tyr Glu Trp Gln Asp Lys Asp Gly Arg Lys Arg Pro Phe Phe Ile 50 55 His Arg Arg Asp Gly Gln Pro Thr Gly Phe Ala Ala Leu Ala Glu Thr 70 75 Trp Met Gly Pro Asn Gly Glu Glu Phe Asp Ser Val Ala Ile Val Thr 85 90 Thr Gln Ala Ser Pro Asp Leu Ala Glu Leu His His Arg Val Pro Val Thr Ile Ala Pro Asp Asp Phe Glu Arg Trp Leu Asp Gly Arg Ala Asn 120 Asp Val Glu Asp Val Met Pro Leu Leu Arg Ala Pro Arg Val Gly Glu 130 135 140 Phe Ala Trp His Glu Val Ser Thr Arg Val Asn Arg Val Ala Asn Asp 150 155 160 Asp Glu Gln Leu Val Leu Pro Ile Ser Glu Glu Gln Arg Ala Ala Glu 165 170 Ala Pro Lys Pro Val Lys Lys Ala Ala Pro Arg Lys Thr Thr Pro Glu 180 185 190 Pro Glu Asp Glu Gly Gln Gly Ser Leu Phe 195 200

<210> 4707

<211> 339

<212> PRT

<213> Homo sapiens

<400> 4707

Met Leu Pro Ser Ala Val Ala Ala His Ala Gly Ala Tyr Trp Asp Val

1 5 10 15

Val Ala Ser Ser Ala Leu Leu Asn Leu Pro Ala Ala Pro Gly Phe Gly

20 25 30

Asn Leu Gly Lys Ser Phe Leu 11e Glu Asn Leu Leu Arg Val Gly Gly

35 40 45

Ala	Pro	Thr	Pro	Arg	Leu	GIn	Pro	Pro	Ala	Pro	His	Asp	Pro	Ala	Thr
	50					55					60				
Ala	Leu	Ala	Thr	Ala	Gly	Ala	Gln	Leu	Arg	Pro	Leu	Pro	Ala	Ser	Pro
65					70					75					80
Va]	Pro	Leu	Lys	Leu	Cys	Pro	Ala	Ala	Glu	Gln	Val	Ser	Pro	Ala	Gly
				85					90					95	
Ala	Pro	Tyr	Gly	Thr	Arg	Trp	Ala	Phe	Gln	Val	Leu	Ser	Pro	Ser	Ala
			100					105					110		
Asp	Ser	Ala	Arg	Leu	Pro	Gly	Arg	Ala	Pro	Gly	Asp	Arg	Asp	Cys	Thr
		115					120					125			
Phe	Gln	Pro	Ser	Ala	Pro	Ala	Pro	Ser	Lys	Pro	Phe	Leu	Leu	Ser	Thr
	130					135					140				
Pro	Pro	Phe	Tyr	Ser	Ala	Cys	Cys	G1 y	Gly	Ser	Cys	Arg	Arg	Pro	Ala
145					150					155					160
Ser	Ser	Thr	Ala	Phe	Pro	Arg	Glu	Glu	Ser	Val	Leu	Pro	Leu	Leu	Thr
				165					170					175	
G1n	Asp	Ser	Asn	Ser	Lys	Ala	Arg	Arg	Gly	Ile	Leu	Arg	Arg	Ala	Val
			180					185					190		
Phe	Ser		Asp	Gln	Arg	Lys		Leu	Glu	Lys	Met		Gln	Lys	Gln
		195					200					205			
Lys		He	Ser	Lys	Thr	Asp	Arg	Lys	Lys	Leu		He	Asn	Leu	Gly
	210					215					220				
	Lys	Glu	Ser	Gln		Lys	lle	Trp	Phe		Asn	Arg	Arg	Met	
225					230					235					240
Trp	Arg	Asn	Ser		Glu	Lys	Glu	Val		Ser	Asn	Arg	Cys		Gln
				245					250					255	
Glu	Val	Gly		GIn	Glu	Asp	Pro		Ser	Arg	Ser	Ala		Gly	Phe
-			260				-	265				0.7	270		_
Pro	Ser		Cys	Pro	Ser	He		Asp	Val	Pro	GIn		His	Ser	Ser
		275					280					285			<b>~</b> 1
Pro		Trp	Arg	Glu	Asn	Ser	Pro	Glu	Pro	Ser		Arg	Leu	He	GIn
0.1	290		0.3		<b>n</b>	295 p	<b>.</b>	0.1			300	,	0.7	0.3	
	Ser	Ser	Gly	Ala		Pro	Pro	Glu	Ala		Ser	Leu	Gln	Gly	
305	Tr.	,	0	0	310	0.1	0.1		0.1	315	,	0.	37 3		320
1 611	lvr	1 611	LVS	Ser	(.   11	Glu	6.111	Ala	ULV	Ser	1 V S	Lilv	Val	1 611	thr

Gly Ala Val <210> 4708 <211> 259 <212> PRT <213> Homo sapiens <400> 4708 Met Val Val Gln Gly Lys Arg Met Arg Lys Glu Thr Trp Gly Tyr Phe Cys Ser Lys Trp Asn Leu Leu Glu Leu Ala Ile Ile Leu Ala Ser Trp Ser Ala Leu Ala Val Phe Val Lys Arg Ala Val Leu Ala Glu Arg Asp Leu Gln Arg Cys Arg Asn His Arg Glu Glu Gly Ile Ser Phe Ser Glu Thr Ala Ala Ala Asp Ala Ala Leu Gly Tyr Ile Ile Val Phe Leu Val Leu Leu Ser Thr Val Lys Leu Trp His Leu Leu Arg Leu Asn Pro Lys Met Asn Met Ile Thr Ala Ala Leu Arg Arg Ala Trp Gly Asp Ile Ser Gly Phe Ile Ile Val Ile Leu Thr Met Leu Leu Ala Tyr Ser Ile Ala Ser Asn Leu Ile Phe Gly Trp Lys Leu Arg Ser Tyr Lys Thr Leu Phe Asp Ala Ala Glu Thr Met Val Ser Leu Gln Leu Gly Ile Phe Asn Tyr Glu Glu Val Leu Asp Tyr Ser Pro Val Leu Gly Ser Phe Leu Ile Gly

Ser Cys Ile Val Phe Met Thr Phe Val Val Leu Asn Leu Phe Ile Ser

 Val
 11e
 Leu
 Val
 Ala
 Phe
 Ser
 Glu
 Glu
 Glu
 Lys
 Tyr
 Glu
 Leu
 Ser

 Glu
 Glu
 Glu
 Ile
 Val
 Asp
 Leu
 Leu
 Met
 Lys
 Ile
 Leu
 Ser
 Phe

 Leu
 Glu
 Ile
 Lys
 Ser
 Lys
 Arg
 Glu
 Pro
 Gly
 Ser
 Ser
 Arg
 Glu
 Glu
 Pro
 Gly
 Ser
 Arg
 Glu
 Glu
 Pro
 Gly
 Ser
 Arg
 Glu
 Glu
 Arg
 Pro
 Arg
 Pro
 Arg
 His
 Ser
 Arg
 Pro
 Ala
 Glu
 Ala
 Leu

 Pro
 Lys
 Asp
 Leu
 Er
 Lys
 Fr
 Lys
 Er
 Er
 Lys
 Er
 Er

<210> 4709

<211> 722

<212> PRT

<213> Homo sapiens

<400> 4709

50 55 60 Lys Leu Thr Gly Ser Thr Asp Gln His Asp His Arg His Ala Gly Asn 70 65 75 80 Lys Pro Ile Lys Asp Gln Leu Gly Ser Ser Phe Tyr Ser His Leu Pro 85 90 Glu Leu His Ile Ile Gln Ile Lys Gly Lys Ile Gly Asn Gln Phe Glu 105 Lys Ser Thr Ser Asp Ala Pro Ser Val Ser Thr Ser Gln Arg Ile Ser 115 Pro Arg Pro Gln lle His lle Ser Asn Asn Tyr Gly Asn Asn Ser Pro

	130					135					140				
Asn	Ser	Ser	Leu	Leu	Pro	Gln	Lys	Gln	Glu	Val	Tyr	Met	Arg	Glu	Lys
145					150					155					160
Ser	Phe	Gln	Cys	Asn	Glu	Ser	Gly	Lys	Ala	Phe	Asn	Cys	Ser	Ser	Leu
				165					170					175	
Leu	Arg	Lys	His	Gln	He	Pro	His	Leu	Gly	Asp	Lys	Gln	Tyr	Lys	Cys
			180					185					190		
Asp	Val	Cys	Gly	Lys	Leu	Phe	Asn	His	Lys	Gln	Tyr	Leu	Thr	Cys	His
		195					200					205			
Arg	Arg	Cys	His	Thr	Gly	Glu	Lys	Pro	Tyr	Lys	Cys	Asn	Glu	Cys	Gly
	210					215					220				
Lys	Ser	Phe	Ser	Gln	Val	Ser	Ser	Leu	Thr	Cys	His	Arg	Arg	Leu	His
225					230					235					240
Thr	Ala	Val	Lys	Ser	His	Lys	Cys	Asn	Glu	Cys	Gly	Lys	lle	Phe	Gly
				245					250					255	
Gln	Asn	Ser	Ala	Leu	Val	lle	His	Lys	Ala	He	His	Thr	Gly	Glu	Lys
			260					265					270		
Pro	Tyr	Lys	Cys	Asn	Glu	Cys	Asp	Lys	Ala	Phe	Asn	Gln	Gln	Ser	Asn
		275					280					285			
Leu		Arg	His	Arg	Arg	He	His	Thr	Gly	Glu	Lys	Pro	Tyr	Lys	Cys
	290					295					300				
Glu	Glu	Cys	Asp	Lys	Val	Phe	Ser	Arg	Lys	Ser	Thr	Leu	Glu	Ser	
305					310					315					320
Lys	Arg	lle	His		Gly	Glu	Lys	Pro		Lys	Cys	Lys	Val	Cys	Asp
				325					330					335	
Thr	Ala	Phe		Trp	Asn	Ser	Gln		Ala	Arg	His	Lys		lle	His
			340		_			345					350		
Thr	Gly		Lys	Thr	Tyr	Lys	-	Asn	Glu	Cys	Gly	-	Thr	Phe	Ser
		355		_		_	360					365		0.1	
His		Ser	Ser	Leu	Val		H1S	HIS	Arg	Leu		Gly	Gly	Glu	Lys
	370		0			375		,		<b>5</b> 1	380	m			
	tyr	Lys	Cys	Lys		Cys	Asp	Lys	Ala		Ala	trp	Asn	Ser	
385	17 1			TI	390	1.1		c	63	395		n	т		400
Leu	val	Arg	HIS		Arg	He	HIS	Ser		61 y	Lys	Pro	lyr	Lys	Cys
	C.1	C	C1	405	TI	D)	C1	C1	410	C		,	,	415	11.
Asn	61u	Cys	ыу	Lys	lhr	Phe	Ыy	Ыn	Asn	5er	Asp	Leu	Leu	Пe	HIS

			420					425					430		
Lys	Ser	He	His	Thr	Gly	G1u	Gln	Pro	Tyr	Lys	Tyr	Glu	Glu	Cys	Glu
		435					440					445			
Lys	Val	Phe	Ser	Cys	Gly	Ser	Thr	Leu	Glu	Thr	His	Lys	He	]]e	His
	450					455					460				
Thr	Gly	Glu	Lys	Pro	Tyr	Lys	Cys	Lys	Val	Cys	Asp	Lys	Ala	Phe	Лlа
465					470					475					480
Cys	His	Ser	Tyr	Leu	Ala	Lys	His	Thr	Arg	lle	His	Ser	Gly	Glu	Lys
				485					490					495	
Pro	Tyr	Lys	Cys	Asn	Glu	Cys	Ser	Lys	Thr	Phe	His	Leu	Arg	Ser	Tyr
			500					505					510		
Leu	Ala	Ser	His	Arg	Arg	Val	His	Ser	Gly	Glu	Lys	Pro	Tyr	Lys	Cys
		515					520					525			
Asn	Glu	Cys	Ser	Lys	Thr	Phe	Ser	Gln	Arg	Ser	Tyr	Leu	His	Cys	His
	530					535					540				
Arg	Arg	Leu	His	Ser	Gly	Glu	Lys	Pro	Tyr	Lys	Cys	Asn	Glu	Cys	Gly
545					550					555					560
Lys	Thr	Phe	Ser	His	Lys	Pro	Ser	Leu	Val	His	His	Arg	Arg	Leu	His
				565					570					575	
Thr	G1 y	Glu	Lys		Tyr	Lys	Cys	Thr		Cys	Asp	Lys	Ala		Val
Thr	G1 y	Glu	Lys 580		Tyr	Lys	Cys	Thr 585		Cys	Asp	Lys	Ala 590		Val
			580	Ser		Lys Arg		585	Val				590	Phe	
			580	Ser				585	Val				590	Phe	
Arg	Asn	Ser 595	580 Tyr	Ser Leu	Ala		His 600	585 Thr	Val Arg	Ile	His	Thr 605	590 Ala	Phe Glu	Lys
Arg	Asn	Ser 595	580 Tyr	Ser Leu	Ala	Arg	His 600	585 Thr	Val Arg	Ile	His	Thr 605	590 Ala	Phe Glu	Lys
Arg Pro	Asn Tyr 610	Ser 595 Lys	580 Tyr Cys	Ser Leu Asn	Ala Glu	Arg Cys	His 600 Gly	585 Thr Lys	Val Arg Ala	Ile Phe	His Asn 620	Thr 605 Gln	590 Ala Gln	Phe Glu Ser	Lys Gln
Arg Pro	Asn Tyr 610	Ser 595 Lys	580 Tyr Cys	Ser Leu Asn	Ala Glu Arg	Arg Cys 615	His 600 Gly	585 Thr Lys	Val Arg Ala Gly	Ile Phe	His Asn 620 Lys	Thr 605 Gln	590 Ala Gln	Phe Glu Ser	Lys Gln
Arg Pro Leu 625	Asn Tyr 610 Ser	Ser 595 Lys Leu	580 Tyr Cys His	Ser Leu Asn His	Ala Glu Arg 630	Arg Cys 615 Ile	His 600 Gly His	585 Thr Lys Ala	Val Arg Ala Gly	Ile Phe Glu 635	His Asn 620 Lys	Thr 605 Gln Leu	590 Ala Gln Tyr	Phe Glu Ser Lys	Lys Gln Cys 640
Arg Pro Leu 625	Asn Tyr 610 Ser	Ser 595 Lys Leu	580 Tyr Cys His	Ser Leu Asn His	Ala Glu Arg 630	Arg Cys 615 11e	His 600 Gly His	585 Thr Lys Ala	Val Arg Ala Gly	Ile Phe Glu 635	His Asn 620 Lys	Thr 605 Gln Leu	590 Ala Gln Tyr	Phe Glu Ser Lys	Lys Gln Cys 640
Arg Pro Leu 625 Glu	Asn Tyr 610 Ser Thr	Ser 595 Lys Leu Cys	580 Tyr Cys His	Ser Leu Asn His Lys 645	Ala Glu Arg 630 Val	Arg Cys 615 11e	His 600 Gly His	585 Thr Lys Ala Arg	Val Arg Ala Gly Lys 650	Ile Phe Glu 635 Ser	His Asn 620 Lys His	Thr 605 Gln Leu Leu	590 Ala Gln Tyr Lys	Phe Glu Ser Lys Arg 655	Lys Gln Cys 640 His
Arg Pro Leu 625 Glu	Asn Tyr 610 Ser Thr	Ser 595 Lys Leu Cys	580 Tyr Cys His	Ser Leu Asn His Lys 645	Ala Glu Arg 630 Val	Arg Cys 615 11e Phe	His 600 Gly His	585 Thr Lys Ala Arg	Val Arg Ala Gly Lys 650	Ile Phe Glu 635 Ser	His Asn 620 Lys His	Thr 605 Gln Leu Leu	590 Ala Gln Tyr Lys	Phe Glu Ser Lys Arg 655	Lys Gln Cys 640 His
Arg Pro Leu 625 Glu Arg	Asn Tyr 610 Ser Thr	Ser 595 Lys Leu Cys	580 Tyr Cys His Asp	Leu Asn His Lys 645 Pro	Ala Glu Arg 630 Val	Arg Cys 615 11e Phe	His 600 Gly His Ser Lys	585 Thr Lys Ala Arg Pro 665	Val Arg Ala Gly Lys 650 Tyr	Ile Phe Glu 635 Ser Lys	His Asn 620 Lys His	Thr 605 Gln Leu Leu	590 Ala Gln Tyr Lys Val 670	Phe Glu Ser Lys Arg 655 Cys	Lys Gln Cys 640 His
Arg Pro Leu 625 Glu Arg	Asn Tyr 610 Ser Thr	Ser 595 Lys Leu Cys	580 Tyr Cys His Asp	Leu Asn His Lys 645 Pro	Ala Glu Arg 630 Val	Arg Cys 615 11e Phe	His 600 Gly His Ser Lys	585 Thr Lys Ala Arg Pro 665	Val Arg Ala Gly Lys 650 Tyr	Ile Phe Glu 635 Ser Lys	His Asn 620 Lys His	Thr 605 Gln Leu Leu	590 Ala Gln Tyr Lys Val 670	Phe Glu Ser Lys Arg 655 Cys	Lys Gln Cys 640 His
Arg Pro Leu 625 Glu Arg Lys	Asn Tyr 610 Ser Thr Arg	Ser 595 Lys Leu Cys The Phe 675	580 Tyr Cys His Asp His 660 Gly	Leu Asn His Lys 645 Pro	Ala Glu Arg 630 Val Gly	Arg Cys 615 11e Phe	His 600 Gly His Ser Lys His 680	585 Thr Lys Ala Arg Pro 665 Leu	Val Arg Ala Gly Lys 650 Tyr	Ile Phe Glu 635 Ser Lys	His Asn 620 Lys His	Thr 605 Gln Leu Lys Thr 685	590 Ala Gln Tyr Lys Val 670 Gly	Phe Glu Ser Lys Arg 655 Cys	Lys Gln Cys 640 His
Arg Pro Leu 625 Glu Arg Lys	Asn Tyr 610 Ser Thr Arg	Ser 595 Lys Leu Cys The Phe 675	580 Tyr Cys His Asp His 660 Gly	Leu Asn His Lys 645 Pro	Ala Glu Arg 630 Val Gly	Arg  Cys 615 11e Phe Lys Ser	His 600 Gly His Ser Lys His 680	585 Thr Lys Ala Arg Pro 665 Leu	Val Arg Ala Gly Lys 650 Tyr	Ile Phe Glu 635 Ser Lys	His Asn 620 Lys His	Thr 605 Gln Leu Lys Thr 685	590 Ala Gln Tyr Lys Val 670 Gly	Phe Glu Ser Lys Arg 655 Cys	Lys Gln Cys 640 His

Leu Asp <210> 4710 <211> 422 <212> PRT <213> Homo sapiens <400> 4710 Met Phe Gln Thr Ala Trp Arg Gln Glu Pro Val Thr Phe Glu Asp Val Ala Val Tyr Phe Thr Gln Asn Glu Trp Ala Ser Leu Asp Ser Val Gln Arg Ala Leu Tyr Arg Glu Val Met Leu Glu Asn Tyr Ala Asn Val Ala Ser Leu Ala Phe Pro Phe Thr Thr Pro Val Leu Val Ser Gln Leu Glu Gln Gly Glu Leu Pro Trp Gly Leu Asp Pro Trp Glu Pro Met Gly Arg Glu Ala Leu Arg Gly Ile Cys Pro Gly Asp Glu Ala Arg Thr Glu Lys Glu Gly Leu Thr Pro Lys Asp His Val Ser Lys Glu Thr Glu Ser Phe Arg Leu Met Val Gly Gly Leu Pro Gly Asn Val Ser Gln His Leu Asp Phe Gly Ser Ser Leu Glu Gln Pro Gln Gly His Trp Ile Ile Lys Thr Lys Ser Lys Arg Arg His Phe Thr Asp Thr Ser Ala Arg His His Glu Ala Tyr Glu Val Lys Asn Gly Glu Lys Phe Glu Lys Leu Gly Lys Asn lle Ser Val Ser Thr Gln Leu Thr Thr Asn Gln Thr Asn Pro Ser Gly

Gln Ile Ser Tyr Glu Cys Gly Gln Cys Gly Arg Tyr Phe Ile Gln Met

		195					200					205			
Ala	Asp	Phe	His	Arg	His	Glu	Lys	Cys	His	Thr	Gly	Glu	Lys	Ser	Phe
	210					215					220				
Glu	Cys	Lys	Glu	Cys	Gly	Lys	Tyr	Phe	Arg	Tyr	Asn	Ser	Leu	Leu	lle
225					230					235					240
Arg	His	Gln	He	lle	His	Thr	Gly	Lys	Lys	Pro	Phe	Lys	Cys	Lys	Glu
				245					250					255	
Cys	Gly	Lys	Gly	Leu	Ser	Ser	Asp	Thr	Ala	Leu	He	Gln	His	Gln	Arg
			260					265					270		
He	His	Thr	Gly	Glu	Lys	Pro	Tyr	Glu	Cys	Lys	Glu	Cys	Gly	Lys	Ala
		275					280					285			
Phe	Ser	Ser	Ser	Ser	Val	Phe	Leu	Gln	His	Gln	Arg	Phe	His	Thr	Gly
	290					295					300				
Glu	Lys	Leu	Tyr	Glu	Cys	Asn	Glu	Cys	Trp	Lys	Thr	Phe	Ser	Cys	Ser
305					310					315					320
Ser	Ser	Phe	Thr	Val	His	Gln	Arg	Met	His	Thr	Gly	Glu	Lys	Pro	Tyr
				325					330					335	
Glu	Cys	Lys	Glu	Cys	Gly	Lys	Arg	Leu	Ser	Ser	Asn	Thr	Ala	Leu	Thr
			340					345					350		
Gln	His	Gln	Arg	He	His	Thr	Gly	Glu	Lys	Pro	Phe	Glu	Cys	Lys	Glu
		355					360					365			
Cys	$\operatorname{Gl} y$	Lys	Ala	Phe	Asn	Gln	Lys	He	Thr	Leu	lle	Gln	His	Gln	Arg
	370					375					380				
Val	His	Thr	Gly	Glu	Lys	Pro	Tyr	Glu	Cys	Lys	Val	Cys	G1 y	Lys	Thr
385					390					395					400
Phe	Ser	Trp	Cys	Gly	Arg	Phe	He	Leu	His	Gln	Lys	Leu	His	Thr	Gln
				405					410					415	
Lys	Thr	Pro	Val	Gln	Ala										
			420												

<210> 4711

<211> 446

<212> PRT

<213> Homo sapiens

<40	0> 47	711													
Met	Glu	Arg	lle	Pro	Val	Ser	Val	Asp	Phe	Trp	Val	Val	Cys	Cys	Ala
1				5					10					15	
Val	Leu	Lys	Cys	Asn	Pro	Gly	11e	Pro	Lys	Arg	Met	Ser	Thr	Leu	Cys
			20					25					30		
Phe	Gly	Phe	Ser	Asp	Glu	Phe	His	Pro	Phe	He	Glu	Ala	Leu	Leu	Pro
		35					40					45			
His	Val	Arg	Ala	He	Ala	Tyr	Thr	Trp	Phe	Asn	Leu	Gln	Ala	Gly	Lys
	50					55					60				
Arg	Lys	Tyr	Phe	Lys	Lys	His	Glu	Lys	Arg	Met	Ser	Lys	Asp	Glu	Glu
65					70					7.5					80
Arg	Ala	Val	Lys	Asp	Glu	Leu	Leu	Ser	Glu	Lys	Pro	Glu	lle	Lys	Gln
				85					90					95	
Lys	Trp	Ala	Ser	Arg	Leu	Leu	Ala	Lys	Leu	Arg	Lys	Asp	He	Arg	Gln
			100					105					110		
Glu	Tyr	Arg	Glu	Asp	Phe	Val	Leu	Thr	Val	Thr	Gly	Lys	Lys	His	Pro
		115					120					125			
Cys	Cys	Val	Leu	Ser	Asn	Pro	Asp	Gln	Lys	Gly	Lys	lle	Arg	Arg	He
	130					135					140				
Asp	Cys	Leu	Arg	Gln	Ala	Asp	Lys	Va]	Trp	Arg	Leu	Asp	Leu	Val	Met
145					150					155					160
Val	He	Leu	Phe	Lys	Gly	11e	Pro	Leu	Glu	Ser	Thr	Asp	Gly	G1u	Arg
				165					170					175	
Leu	Met	Lys	Ser	Pro	His	Cys	Thr	Asn	Pro	Ala	Leu	Cys	Val	Gln	Pro
			180					185					190		
His	His	Ile	Thr	Val	Ser	Val	Lys	Glu	Leu	Asp	Leu	Phe	Leu	Ala	Tyr
		195					200					205			
Tyr	Val	Gln	Glu	Gln	Asp	Ser	Gly	Gln	Ser	G1 y	Ser	Pro	Ser	His	Ser
	210					215					220				
Asp	Pro	Ala	Lys	Asn	Pro	Pro	Gly	Tyr	Leu	Glu	Asp	Ser	Phe	Val	Lys
225					230					235					240
Ser	Gly	Val	Phe	Asn	Val	Ser	G] u	Leu	Val	Arg	Val	Ser	Arg	Thr	Pro
				245					250					255	
Ile	Thr	Gln	Gly	Thr	Gly	Val	Asn	Phe	Pro	He	Gly	Glu	He	Pro	Ser
			260					265					270		
										Val					

Leu Ser Ser Pro Pro Ser Ser Lys Arg Pro Lys Thr Ile Ser Ile Asp Glu Asn Met Glu Pro Ser Pro Thr Gly Asp Phe Tyr Pro Ser Pro Ser Ser Pro Ala Ala Gly Ser Arg Thr Trp His Glu Arg Asp Gln Asp Met Ser Ser Pro Thr Thr Met Lys Lys Pro Glu Lys Pro Leu Phe Ser Ser Ala Ser Pro Gln Asp Ser Ser Pro Arg Leu Ser Thr Phe Pro Gln His His His Pro Gly 11e Pro Gly Val Ala His Ser Val 11e Ser Thr Arg Thr Pro Pro Pro Pro Ser Pro Leu Pro Phe Pro Thr Gln Ala 11e Leu Pro Pro Ala Pro Ser Ser Tyr Phe Ser His Pro Thr 11e Arg Tyr Pro Pro His Leu Asn Pro Gln Asp Thr Leu Lys Asn Tyr Val Pro Ser Tyr Asp Pro Ser Ser Pro Gln Thr Ser Gln Ser Trp Tyr Leu Gly 

<210> 4712

<211> 488

<212> PRT

<213> Homo sapiens

<400> 4712

	50					55					60				
Val	Asn	Gly	Leu	Tyr	Ser	Ser	Ser	Asp	Asp	Val	He	Glu	Leu	Thr	Pro
65					70					75					80
Ser	Asn	Phe	Asn	Arg	Glu	Val	He	Gln	Ser	Asp	Ser	Leu	Trp	Leu	Val
				85					90					95	
Glu	Phe	Tyr	Ala	Pro	Trp	Cys	Gly	His	Cys	G1n	Arg	Leu	Thr	Pro	Glu
			100					105					110		
Trp	Lys	Lys	Ala	Ala	Thr	Ala	Leu	Lys	Asp	Val	Val	Lys	Val	Gly	Ala
		115					120					125			
Val	Asp	Ala	Asp	Lys	His	His	Ser	Leu	Gly	Gly	Gln	Tyr	Gly	Val	Gln
	130					135					140				
Gly	Phe	Pro	Thr	He	Lys	He	Phe	Gly	Ser	Asn	Lys	Asn	Arg	Pro	Glu
145					150					155					160
Asp	Tyr	Gln	Gly	Gly	Arg	Thr	Gly	Glu	Ala	He	Val	Asp	Ala	Ala	Leu
				165					170					175	
Ser	Ala	Leu	Arg	Gln	Leu	Val	Lys	Asp	Arg	Leu	Gly	Gly	Arg	Ser	Gly
			180					185					190		
Gly	Tyr	Ser	Ser	Gly	Lys	Gln	Gly	Arg	Ser	Asp	Ser	Ser	Ser	Lys	Lys
		195					200					205			
Asp	Val	Ile	Glu	Leu	Thr	Asp	Asp	Ser	Phe	Asp	Lys	Asn	Val	Leu	Asp
	210					215					220				
Ser	Glu	Asp	Val	Trp	Met	Va]	Glu	Phe	Tyr	Ala	Pro	Trp	Cys	Gly	His
225					230					235			-		240
Cys	Lys	Asn	Leu	Glu	Pro	Glu	Trp	Ala	Ala	Ala	Ala	Ser	Glu	Val	Lys
				245					250					255	
Glu	Gln	Thr	Lys	Gly	Arg	Val	Lys	Leu	Ala	Ala	Val	Asp	Ala	Thr	Val
			260					265					270		
Asn	Gln	Val	Leu	Ala	Ser	Arg	Tyr	Gly	lle	Arg	Gly	Phe	Pro	Thr	lle
		275					280					285			
Lys	He	Phe	Gln	Lys	Gly	Glu	Ser	Pro	Val	Asp		Asp	Gly	Gly	Arg
	290					295					300				
Thr	Arg	Ser	Asp	Пе		Ser	Arg	Ala	Leu		Leu	Phe	Ser	Asp	
305					310					315					320
Ala	Pro	Pro	Pro		Leu	Leu	Glu	lle		Asn	Glu	Asp	He		Lys
		_		325		_			330					335	
Arg	Thr	Cys	Glu	Glu	His	GIn	Leu	Cys	Val	Val	Ala	Val	Leu	Pro	His

			340					345					350		
Ile	Leu	Asp	Thr	Gly	Ala	Ala	Gly	Arg	Asn	Ser	Tyr	Leu	Glu	Val	Leu
		355					360					365			
Leu	Lys	Leu	Ala	Asp	Lys	Tyr	Lys	Lys	Lys	Met	Trp	Gly	Trp	Leu	Trp
	370					375					380				
Thr	Glu	Ala	G1 y	Ala	Gln	Ser	Glu	Leu	Glu	Thr	Ala	Leu	Gly	lle	Gly
385					390					395					400
Gly	Phe	G1 y	Tyr	Pro	Ala	Met	Ala	Ala	Ile	Asn	Ala	Arg	Lys	Met	Lys
				405					410					415	
Phe	Ala	Leu	Leu	Lys	Gly	Ser	Phe	Ser	Glu	Gln	Gly	He	Asn	Glu	Phe
			420					425					430		
Leu	Arg	Glu	Leu	Ser	Phe	Gly	Arg	Gly	Ser	Thr	Ala	Pro	Val	Gly	Gly
		435					440					445			
Gly	Ala	Phe	Pro	Thr	He	Val	Glu	Arg	Glu	Pro	Trp	Asp	Gly	Arg	Asp
	450					455					460				
Gly	Glu	Leu	Pro	Val	Glu	Asp	Asp	lle	Asp	Leu	Ser	Asp	Val	Glu	Leu
465					470					475					480
Asp	Asp	Leu	Gly	Lys	Asp	Glu	Leu								
				485											
<210	)> 47	713													
<211	1> 3	18													
<212	2> PI	RT													
<213	3> Ho	omo s	sapie	ens											
<400	)> 47	713													
Met	Val	Leu	Ser	Ser	Gly	Pro	Gln	Trp	Cys	G1 y	Ser	Gln	Glu	Leu	Trp
1				5					10					15	
Phe	Gly	Lys	Thr	Cys	Glu	Glu	Lys	Ser	Arg	Leu	Gly	Arg	Trp	Pro	Gly
			20					25					30		
Tyr	Leu	Asn	Gly	G1 y	Arg	Met	G1u	Ser	Ser	Thr	Asn	Asp	He	He	61u
		35					40					45			
Val	lle	Val	Lys	Asp	Glu	Met	Пе	Ser	Val	Glu	Glu	Ser	Ser	Gly	Asn

Thr	Asp	Val	Asn	Asn	Leu	Leu	Gly	He	His	His	Lys	Ile	Leu	Asn	Glu
65					70					75					80
Gln	He	Phe	Tyr	He	Cys	Glu	Glu	Cys	Gly	Lys	Cys	Phe	Asp	Gln	Asn
				85					90					95	
Glu	Asp	Phe	Asp	Gln	His	Gln	Lys	Thr	His	Asn	Gly	Glu	Lys	Val	Tyr
			100					105					110		
Gly	Cys	Lys	Glu	Cys	Gly	Lys	Ala	Phe	Ser	Phe	Arg	Ser	His	Cys	He
		115					120					125			
Ala	His	Gln	Arg	Ile	His	Ser	Gly	Val	Lys	Pro	Tyr	Glu	Cys	Gln	Glu
	130					135					140				
Cys	Ala	Lys	Ala	Phe	Val	Trp	Lys	Ser	Asn	Leu	Ile	Arg	His	Gln	Arg
145					150					155					160
Ile	His	Thr	Gly	Glu	Lys	Pro	Phe	Glu	Cys	Lys	Glu	Cys	Gly	Lys	Gly
				165					170					175	
Phe	Ser	Gln	Asn	Thr	Ser	Leu	Thr	Gln	His	Gln	Arg	lle	His	Thr	Gly
			180					185					190		
Glu	Lys	Pro	Tyr	Thr	Cys	Lys	Glu	Cys	Gly	Lys	Ser	Phe	Thr	Arg	Asn
		195					200					205			
Pro	Ala	Leu	Leu	Arg	His	Gln	Arg	Met	His	Thr	Gly	Glu	Lys	Pro	Tyr
	210					215					220				
Glu	Cys	Lys	Asp	Cys	Gly	Lys	G1 y	Phe	Met	Trp	Asn	Ser	Asp	Leu	Ser
225					230					235					240
Gln	His	Gln	Arg	Val	His	Thr	G1 y	Asp	Lys	Pro	His	Glu	Cys	Thr	Asp
				245					250					255	
Cys	Gly	Lys	Ser	Phe	Phe	Cys	Lys	Ala	His	Leu	He	Arg	His	Gln	Arg
			260					265					270		
lle	His	Thr	Gly	Glu	Arg	Pro	Tyr	Lys	Cys	Asn	Asp	Cys	Gly	Lys	Ala
		275					280					285			
Phe	Ser	Gln	Asn	Ser	Val	Leu	He	Lys	His	Gln	Arg	Arg	His	Ala	Arg
	290					295					300				
Asp	Lys	Pro	Tyr	Asn	Cys	Gln	lle	Ser	His	Leu	Leu	Glu	His		
305					310					315					

<210> 4714 <211> 743

<212	2> PF	RT													
<213	3> Ho	omo s	sapie	ens											
<400	)> 47	714													
Met	He	Ser	Gln	Phe	Phe	He	Leu	Ser	Ser	Lys	Gly	Asp	Pro	Leu	Πe
1				5					10					15	
Tyr	Lys	Asp	Phe	Arg	Gly	Asp	Ser	Gly	Gly	Arg	Asp	Val	Ala	Glu	Leu
			20					25					30		
Phe	Tyr	Arg	Lys	Leu	Thr	Gly	Leu	Pro	Gly	Asp	Glu	Ser	Pro	Val	Val
		35					40					45			
Met	Asp	Tyr	Gly	Tyr	Val	Gln	Thr	Thr	Ser	Thr	Glu	Met	Leu	Arg	Asn
	50					55					60				
Phe	He	Gln	Thr	Glu	Ala	Val	Val	Ser	Lys	Pro	Phe	Ser	Leu	Phe	Asp
65					70					75					80
Leu	Ser	Ser	Val	Gly	Leu	Phe	Gly	Ala	Glu	Thr	Gln	Gln	Ser	Lys	Val
				85					90					95	
Ala	Pro	Ser	Ser	Ala	Ala	Ser	Arg	Pro	Val	Leu	Ser	Ser	Arg	Ser	Asp
			100					105					110		
Gln	Ser	Gln	Lys	Asn	Glu	Val	Phe	Leu	Asp	Val	Val	Glu	Arg	Leu	Ser
		115					120					125			
Val	Leu	He	Ala	Ser	Asn	Gly	Ser	Leu	Leu	Lys	Val	Asp	Val	Gln	Gly
	130					135					140				
	lle	Arg	Leu	Lys		Phe	Leu	Pro	Ser		Ser	Glu	Met	Arg	
145					150					155					160
Gly	Leu	Thr	Glu		Phe	Cys	Val	Gly		Ser	Glu	Leu	Arg		Tyr
				165					170					175	
G1 y	Pro	Gly		Arg	Val	Asp	Glu		Ser	Phe	His	Ser		Va]	Asr
			180					185					190		
Leu	Asp		Phe	Glu	Ser	His		He	Leu	Arg	Leu		Pro	Pro	Glr
		195					200			_		205			
Gly	Glu	Leu	Thr	Val	Met		Tyr	Gln	Leu	Ser		Asp	Leu	Pro	Ser
<b>.</b>	210	Б	D)	•		215		0	., .	0.	220			0.3	0
	Leu	Pro	Phe	Arg			Pro	Ser	Val			Asp	Arg	Gly	
225					230					235					240

Gly Arg Leu Gln Val Tyr Leu Lys Leu Arg Cys Asp Leu Leu Ser Lys

250

255

245 .

Ser	Gln	Ala	Leu	Asn	Val	Arg	Leu	His	Leu	Pro	Leu	Pro	Arg	Gly	Val
			260					265					270		
Val	Ser	Leu	Ser	Gln	Glu	Leu	Ser	Ser	Pro	Glu	Gln	Lys	Ala	Glu	Leu
		275					280					285			
Ala	Glu	Gly	Ala	Leu	Arg	Trp	Asp	Leu	Pro	Arg	Val	Gln	Gly	G1 y	Ser
	290					295					300				
Gln	Leu	Ser	Gly	Leu	Phe	G1n	Ser	Arg	Lys	Gly	Ala	Asp	Leu	Asp	
305					310					315					320
Glu	Lys	Lys	Ala	Ala	Glu	Cys	Lys	Val	Asp	Ser	He	Gly	Ser	G1 y	Arg
				325					330					335	
Ala	He	Pro	He	Lys	Gln	Gl y	He		Leu	Lys	Arg	Ser		Lys	Ser
			340					345					350		
Leu	Asn		Glu	Trp	Lys	Lys		Tyr	Val	Thr	Leu		Asp	Asn	Gly
		355					360					365			
Leu		Thr	Tyr	His	Pro		Leu	His	Asp	Tyr		GIn	Asn	He	His
0.1	370	0.1				375		TD1	TD1		380	17 1	D	0.1	,
	Lys	GIu	He	Asp		Leu	Arg	Thr	Ihr		Lys	Val	Pro	Gly	
385		В		. 1	390	n	4.7	TT.	4.7	395 D	C1	TI	C	D	400
Arg	Leu	Pro	Arg		Ihr	Pro	Ala	Inr		Pro	GIY	Inr	ser		Arg
۸1.	۸	C1	1	405	V - 1	C1	Λ	C	410	TL	C1	1	C1	415	C1
АТа	ASI	GIY	Leu	ser	vai	GIU	Arg		ASII	Inr.	GIN	Leu		бту	GIY
Thu	C1		420	C1.,	Con	Dho	C1	425	Vo.1	Vo.1	Vo.1	Con	430	Thr	C1v
1111	Glu	435	Glu	GTu	<b>5</b> e1	гпе	440	гие	vai	vai	vai	445	Leu	1111	Oly
G1n	Thr		His	Pho	Clu	Δla		Thr	Δla	Glu	Glu		Glu	Lou	Trn
0111	450	11р	1113	1116	Olu	455	561	1111	MIG	Olu	460	MIG	Olu	LCu	ц
Val		Ser	Val	Gln	Ala		He	Len	Ala	Ser		Gln	Glv	Cvs	Arø
465	0111	001		0111	470	0111	110	200		475	200	0111	01)	0,5	480
	Ala	Lvs	Asp	Lvs		Arg	Leu	G1 v	Asn		Asn	Ala	Ala	Leu	
		,		485		0			490					495	
Val	Gln	Ala	Val		Thr	Val	Arg	Gly	Asn	Ser	Phe	Cys	He		Cys
			500	_				505				-	510		
Asp	Ala	Pro	Asn	Pro	Asp	Trp	Ala		Leu	Asn	Leu	Gly		Leu	Met
-		515			-	-	520					525			
Cys	He	Glu	Cys	Ser	Gly	He	His	Arg	His	Leu	Gly	Ala	His	Leu	Ser
	530					535					540				

Arg	Val	Arg	Ser	Leu	Asp	Leu	Asp	Asp	Trp	Pro	Pro	Glu	Leu	Leu	Ala
545					550					555					560
Val	Met	Thr	Ala	Met	Gly	Asn	Ala	Leu	Ala	Asn	Ser	Val	Trp	Glu	Gly
				565					570					575	
Ala	Leu	Gly	Gly	Tyr	Ser	Lys	Pro	Gly	Pro	Asp	Лlа	Cys	Arg	Glu	Glu
			580					585					590		
Lys	Glu	Arg	Trp	11e	Arg	Ala	Lys	Tyr	Glu	Gln	Lys	Leu	Phe	Leu	Ala
		595					600					605			•
Pro	Leu	Pro	Ser	Ser	Asp	Val	Pro	Leu	Gly	Gln	Gln	Leu	Leu	Arg	Ala
	610					615					620				
Val	Va]	Glu	Asp	Asp	Leu	Arg	Leu	Leu	Val	Met	Leu	Leu	Ala	His	Gly
625					630					635					640
Ser	Lys	Glu	Glu	Val	Asn	Glu	Thr	Tyr	Gly	Asp	Gly	Asp	Gly	Arg	Thr
				645					650					655	
Ala	Leu	His	Leu	Ser	Ser	Ala	Met	Åla	Asn	Val	Val	Phe	Thr	Gln	Leu
			660					665					670		
Leu	Ile	Trp	Tyr	Gly	Val	Asp	Val	Arg	Ser	Arg	Asp	Ala	Arg	Gly	Leu
		675					680					685			
Thr	Pro	Leu	Ala	Tyr	Ala	Arg	Arg	Ala	Gly	Ser	Gln	Glu	Cys	Ala	Asp
	690					695				٠	700				
He	Leu	Ile	Gln	His	Gly	Cys	Pro	Gly	Glu	Gly	Cys	Gly	Leu	Ala	Pro
705					710					715					720
Thr	Pro	Asn	Arg	Glu	Pro	Ala	Asn	Gly	Thr	Asn	Pro	Ser	Ala	Glu	Leu
				725					730					735	
His	Arg	Ser	Pro	Ser	Leu	Leu									
			740												

<210> 4715

<211> 141

<212> PRT

<213> Homo sapiens

<400> 4715

Met Gln Ile Gln Glu Ile Gln Arg Thr Pro Leu Arg Tyr Ser Lys Arg 1 5 10 15 Arg Ser Thr Pro Arg Pro Leu Ile Ile Gly Phe Ser Lys Val Glu Leu 25 Leu Arg Ala Ala Arg Glu Lys Gly Gln Val Thr Tyr Lys Gly Lys Pro 40 45 lle Arg Pro Thr Ala Asp Phe Ser Ala Glu Pro Leu Gln Ala Arg Arg 55 60 Asp Cys Gly Pro Ile Ser Asn Ile Leu Lys Gly Lys Asn Phe Gln Pro 70 75 Arg Ile Ser Tyr Pro Ala Lys Leu Ile Ser Phe Ile Ser Glu Gly Glu 85 90 Ile Lys Ser Phe Pro Asp Lys Gln Met Leu Arg Asp Phe Val Thr Thr 105 Arg Pro Ala Leu Gln Glu Leu Leu Lys Glu Ala Leu Asn Met Glu Arg 115 120 Lys Asn Gln Tyr Gln Pro Leu Gln Lys His Thr Lys Ile 130 135 140

<210> 4716

<211> 715

<212> PRT

<213> Homo sapiens

<400> 4716

Met Ala Thr Phe Met Asp Pro Gly Val Phe Pro Arg Ala Asp Glu Asp
1 5 10 15

Glu Asp Lys Glu Asp Asp Phe Arg Ala Pro Leu Tyr Lys Asn Val Asp
20 25 30

Val Arg Gly lle Gln Val Arg Met Lys Trp Cys Ala Thr Cys His Phe 35 40 45

Tyr Arg Pro Pro Arg Cys Ser His Cys Ser Val Cys Asp Asn Cys Val
50 55 60

Glu Asp Phe Asp His His Cys Pro Trp Val Asn Asn Cys lle Gly Arg
65 70 75 80

Arg Asn Tyr Arg Tyr Phe Phe Leu Phe Leu Leu Ser Leu Ser Ala His
85 90 95

Met	Val	Gly	Val	Val	Ala	Phe	Gly	Leu	Val	Tyr	Val	Leu	Asn	His	Ala
			100					105					110		
Glu	Gly	Leu	Gly	Ala	Ala	His	Thr	Thr	He	Thr	Met	Ala	Val	Met	Cys
		115					120					125			
Val	Ala	Gly	Leu	Phe	Phe	lle	Pro	Val	Пe	Gly	Leu	Thr	Gly	Phe	His
	130					135					140				
Val	Val	Leu	Val	Thr	Arg	Gly	Arg	Thr	Thr	Asn	Glu	Gln	Val	Thr	Gly
145					150					155					160
Lys	Phe	Arg	Gly	Gly	Val	Asn	Pro	Phe	Thr	Arg	Gly	Cys	Cys	Gly	Asn
				165					170					175	
Val	Glu	His	Val	Leu	Cys	Ser	Pro	Leu	Ala	Pro	Arg	Tyr	Val	Val	Glu
			180					185					190		
Pro	Pro		Leu	Pro	Leu	Ala		Ser	Leu	Lys	Pro		Phe	Leu	Arg
		195					200					205			
Pro		Leu	Leu	Asp	Arg	Ala	Ala	Pro	Leu	Lys		Lys	Leu	Ser	Asp
	210		,	4.1	C1	215	61	Δ.	<b>C</b> .		220	1	C1 .	C	1
	Gly	Leu	Lys	Ala		Leu	Gly	Arg	Ser		Ser	Lys	GIY	Ser	
225	A +0.00	Lau	Aon	C1	230	Dwo	Lau	Aan	Lou	235	Dno	Dno	Lau	Dno	240
ush	AI g	Leu	nsp	245	Lys	Pro	Leu	nsp	250	Oly	110	110	Leu	255	110
lve	He	Glu	Ala		Thr	Phe	Ser	Ser		Leu	Gln	Thr	Pro		Pro
Lys	110	Olu	260	Gly	1111	THE	501	265	пэр	Leu	OIII	1111	270	M S	, 10
Glv	Ser	Ala		Ser	Ala	Leu	Ser		Gln	Arg	Thr	Ser		Pro	Thr
,		275					280			0		285			
Pro	Ala	Met	Tyr	Lys	Phe	Arg	Pro	Ala	Phe	Pro	Thr		Pro	Lys	Val
	290					295					300				
Pro	Phe	Cys	Gly	Pro	Gly	Glu	Gln	Val	Pro	Gly	Pro	Asp	Ser	Leu	Thr
305					310					315					320
Leu	Gly	Asp	Asp	Ser	He	Arg	Ser	Leu	Asp	Phe	Val	Ser	Glu	Pro	Ser
				325					330					335	
Leu	Asp	Leu	Pro	Asp	Tyr	Gly	Pro	Gly	Gly	Leu	His	Ala	Ala	Tyr	Pro
			340					345					350		
Pro	Ser	Pro	Pro	Leu	Ser	Ala	Ser	Asp	Ala	Phe	Ser	Gly	Ala	Leu	Arg
		355					360					365			
Ser	Leu	Ser	Leu	Lys	Ala	Ser	Ser	Arg	Arg	Gly	Gly	Asp	His	Val	Ala
	370					375					380				

	GIn	Pro	Leu	Arg		Glu	Gly	ыу	Pro		Ihr	Pro	HIS	Arg	
385					390	_	_			395		_	-	_	400
He	Phe	Ala	Pro	His 405	Ala	Leu	Pro	Asn	Arg 410	Asn	Gly	Ser	Leu	Ser 415	Tyr
Asp	Ser	Leu	Leu 420	Asn	Pro	Gly	Ser	Pro 425	Gly	Gly	His	Ala	Cys 430	Pro	Ala
llic	Dro	A10		G]y	Vo.1	<b>A1</b> 0	C1v		Hi c	Sor	Pro	Tur		Hic	Pro
1113	110	435	1 (11	Oly	vai	MIG	440	1 9 1	1113	501	110	445	Lea	1113	110
Glv	Ala		Glv	Asp	Pro	Pro		Pro	Leu	Pro	Arg		Phe	Ser	Pro
01)	450		01)	пор		455	8		200		460	501			
Val		Glv	Pro	Arg	Pro		Glu	Pro	Ser	Pro		Arg	Tyr	Asp	Asn
465		•		J	470	Ü				475			•	•	480
Leu	Ser	Arg	Thr	lle	Met	Ala	Ser	He	Gln	Glu	Arg	Lys	Asp	Arg	Glu
				485					490					495	
Glu	Arg	G]u	Arg	Leu	Leu	Arg	Ser	Gln	Ala	Asp	Ser	Leu	Phe	Gly	Asp
			500					505					510		
Ser	Gly	Val	Tyr	Asp	Ala	Pro	Ser	Ser	Tyr	Ser	Leu	Gln	Gln	Ala	Ser
		515					520					525			
Val	Leu	Ser	Glu	Gly	Pro	Arg	Gly	Pro	Ala	Leu	Arg	Tyr	Gly	Ser	Arg
	530					535					540				
Asp	Asp	Leu	Va]	Ala	Gly	Pro	Gly	Phe	Gly	Gly	Ala	Arg	Asn	Pro	Ala
545					550					555					560
Leu	Gln	Thr	Ser	Leu	Ser	Ser	Leu	Ser	Ser	Ser	Val	Ser	Arg	Ala	Pro
				565					570					575	
Arg	Thr	Ser	Ser	Ser	Ser	Leu	Gln	Ala	Asp	Gln	Ala	Ser	Ser	Asn	Ala
			580					585					590		
Pro	Gly		Arg	Pro	Ser	Ser		Ser	His	Arg	Ser		Ala	Arg	G1n
		595					600	_		_	_	605	_		
G1 y		Pro	Ser	Pro	Pro		Thr	Pro	His	Ser		Ser	Tyr	Ala	Gly
	610				151	615		m.			620 D	0.1	15	15	n
	Lys	Ala	Val	Ala		11e	HIS	Ihr	Asp		Pro	Glu	Pro	Pro	
625	1	ть	V - 1	C1	630	C1	A	11.	C1	635	Cua	These	A 30 00	C1	640
ser.	Leu	ınr	vai	Gln 645	нгg	OIÀ	Arg	116	650	1111	Cys	143	мгд	655	пþ
Glv	Ara	Ara	Glv	Gln	Pro	Trn	Val	Pro		GLv	ىم ا	Hic	ىرم ا		Hic
01 y	ni g	шg	660	0111	110	ч	, (1)	665	110	Oly	Leu	1113	670	0,3	11,13
			555					555					J. J		

Leu Gly Arg Pro Glu Asp Arg Pro Pro Leu Arg Ala Pro Trp Ser Gln
685

Ala Ala Gly Ala Pro Pro Arg Gly Ala Met Cys Arg Leu His Leu Ala
690

Ala Ser Ser Leu Phe Pro Ser Leu Ser Gly Pro
705

716

<210> 4717

<211> 851

<212> PRT

<213> Homo sapiens

<400> 4717 Met Ser Val Ser Phe His Thr His Thr Lys Glu Leu Trp Thr Trp Met 1 5 10 Glu Asp Leu Gln Lys Glu Met Leu Glu Asp Val Cys Ala Asp Ser Val 25 20 Asp Ala Val Gln Glu Leu Ile Lys Gln Phe Gln Gln Gln Gln Thr Ala 35 Thr Leu Asp Ala Thr Leu Asn Val IIe Lys Glu Gly Glu Asp Leu IIe 55 Gln Gln Leu Arg Asp Ser Ala Val Ser Asn Asn Lys Thr Pro His Ser 70 75 65 80 Ser Ser lle Ser His Ile Glu Ser Val Leu Gln Gln Leu Asp Asp Ala 85 90 95 Gln Val Gln Met Glu Glu Leu Phe His Glu Arg Lys Ile Lys Leu Asp 105 110 lle Phe Leu Gln Leu Arg lle Phe Glu Gln Tyr Thr lle Glu Val Thr 125 115 120

Phe Asn Thr Glu Asp Leu Thr Leu Ala Glu Gln Arg Leu Gln Arg His 145 150 155 160

Ala Glu Leu Asp Ala Trp Asn Glu Asp Leu Leu Arg Gln Met Asn Asp

135

Thr Glu Arg Lys Leu Ala Met Asn Asn Met Thr Phe Glu Val 11e Gln

165 170 175

Gln	G1 y	Gln	Asp	Leu	His	Gln	Tyr	He	Thr	Glu	Val	Gln	Ala	Ser	Gly
			180					185					190		
He	Glu	Leu	He	Cys	Glu	Lys	Asp	He	Asp	Leu	Ala	Ala	Gln	Val	Gln
		195					200					205			
Glu	Leu	Leu	Glu	Phe	Leu	His	Glu	Lys	Gln	His	Glu	Leu	Glu	Leu	Asn
	210					215					220				
Ala	Glu	Gln	Thr	His	Lys	Arg	Leu	Glu	Gln	Cys	Leu	Gln	Leu	Arg	His
225					230					235					240
Leu	Gln	Ala	Glu	Val	Lys	Gln	Val	Leu	Gly	Trp	Ile	Arg	Asn	Gly	Glu
				245					250					255	
Ser	Met	Leu	Asn	Ala	Ser	Leu	Val	Asn	Ala	Ser	Ser	Leu	Ser	Glu	Ala
			260					265					270		
Glu	Gln	Leu	Gln	Arg	Glu	His	Glu	Gln	Phe	Gln	Leu	Ala	He	Glu	Ser
		275					280					285			
Leu	Phe	His	Ala	Thr	Ser	Leu	Gln	Lys	Thr	His	Gln	Ser	Ala	Leu	Gln
	290					295					300				
Val	Gln	Gln	Lys	Ala	Glu	Val	Leu	Leu	Gln	Ala	Gly	His	Tyr	Asp	Ala
305					310					315					320
Asp	Ala	He	Arg	Glu	Cys	Ala	Glu	Lys	Val	Ala	Leu	His	Trp	Gln	Gln
				325					330					335	
Leu	Met	Leu	Lys	Met	Glu	Asp	Arg	Leu	Lys	Leu	Val	Asn	Ala	Ser	Val
			340					345					350		
Ala	Phe	Tyr	Lys	Thr	Ser	Glu	Gln	Val	Cys	Ser	Val	Leu	Glu	Ser	Leu
		355					360					365			
Glu	Gln	Glu	Tyr	Arg	Arg	Asp	Glu	Asp	Trp	Cys	Gly	Gly	Arg	Asp	Lys
	370					375					380				
Leu	Gly	Pro	Ala	Ala	Glu	lle	Asp	His	Val	lle	Pro	Leu	He	Ser	Lys
385					390					395					400
His	Leu	Glu	Gln	Lys	Glu	Ala	Phe	Leu	Lys	Ala	Cys	Thr	Leu	Ala	Arg
				405					410					415	
Arg	Asn	Ala	Glu	Va]	Phe	Leu	Lys	Tyr	He	His	Arg	Asn	Asn	Val	Ser
			420					425					430		
Met	Pro	Ser	Va]	Ala	Ser	His	Thr	Arg	Gly	Pro	Glu	Gln	Gln	Val	Lys
		435					440					445			
Ala	He	Leu	Ser	Glu	Leu	Leu	Gln	Arg	Glu	Asn	Arg	Val	Leu	His	Phe
	450					455					460				

Trp	Thr	Leu	Lys	Lys	Arg	Arg	Leu	Asp	Gln	Cys	Gln	Gln	Tyr	Val	Val
465					470					475					480
Phe	Glu	Arg	Ser	Ala	Lys	Gln	Ala	Leu	Asp	Trp	He	Gln	Glu	Thr	Gly
				485					490					495	
Glu	Phe	Tyr	Leu	Ser	Thr	His	Thr	Ser	Thr	Gly	Glu	Thr	Thr	Glu	Glu
			500					505					510		
Thr	Gln	Glu	Leu	Leu	Lys	Glu	Tyr	Gly	Glu	Phe	Arg	Val	Pro	Ala	Lys
		515					520					525			
Gln	Thr	Lys	Glu	Lys	Val	Lys	Leu	Leu	He	Gln	Leu	Ala	Asp	Ser	Phe
	530					535					540				
Val	Glu	Lys	Gly	His	He	His	Ala	Thr	Glu	Ile	Arg	Lys	Trp	Val	Thr
545					550					555					560
Thr	Va]	Asp	Lys	His	Tyr	Arg	Asp	Phe	Ser	Leu	Arg	Met	Gly	Lys	Tyr
				565					570					575	
Arg	Tyr	Ser	Leu	Glu	Lys	Ala	Leu	Gly	Val	Asn	Thr	Glu	Asp	Asn	Lys
			580					585					590		
Asp	Leu	Glu	Leu	Asp	lle	lle	Pro	Ala	Ser	Leu	Ser	Asp	Arg	Glu	Val
		595					600					605			
Lys	Leu	Arg	Asp	Ala	Asn	His	Glu	Val	Asn	Glu	Glu	Lys	Arg	Lys	Ser
	610					615					620				
Ala	Arg	Lys	Lys	Glu	Phe	11e	Met	Ala	Glu	Leu	Leu	Gln	Thr	Glu	Lys
625					630					635					640
Ala	Tyr	Val	Arg	Asp	Leu	His	Glu	Cys	Leu	Glu	Thr	Tyr	Leu	Trp	Glu
				645					650					655	
Met	Thr	Ser	Gly	Val	Glu	Glu	He	Pro	Pro	Gly	lle	Leu	Asn	Lys	Glu
			660					665					670		
His	He	He	Phe	Gly	Asn	He	Gln	Glu	He	Tyr	Asp	Phe	His	Asn	Asn
		675					680					685			
lle	Phe	Leu	Lys	Glu	Leu	Glu	Lys	Tyr	Glu	Gln	Leu	Pro	Glu	Asp	Val
	690					695					700				
G] y	His	Cys	Phe	Val	Thr	Trp	Ala	Asp	Lys	Phe	Gln	Met	Tyr	Val	Thr
705					710					715					720
Tyr	Cys	Lys	Asn	Lys	Pro	Asp	Ser	Asn	Gln	Leu	He	Leu	Glu	His	Ala
				725					730					735	
Gly	Thr	Phe	Phe	Asp	Glu	He	Gln	Gln	Arg	His	Gly	Leu	Ala	Asn	Ser
			740					745					750		

Ile Ser Ser Tyr Leu Ile Lys Pro Val Gln Arg Ile Thr Lys Tyr Gln Leu Leu Leu Lys Glu Leu Leu Thr Cys Cys Glu Glu Gly Lys Gly Glu Leu Lys Asp Gly Leu Glu Val Met Leu Ser Val Pro Lys Lys Ala Asn Asp Ala Met His Val Ser Met Leu Glu Gly Ser Cys Pro Pro Ser Thr Gly Glu Ala Ser Ser Leu Pro Arg His Gly Gly Ala Cys Ile Met Gly Gly Lys Trp His Glu Val Arg Gln Gly Ala Arg Leu Glu Glu Arg Arg Asn Asp Lys

<210> 4718

<211> 312

<212> PRT

<213> Homo sapiens

<400> 4718

Met lle Ala Val Gly Ser Met Asp Tyr Gly Leu Trp Gln Leu Phe Cys Thr Leu Glu Leu Pro Leu 11e Pro 11e Leu Ala Val Met Glu Ser His Ala Ile Gln Val Asn Lys Glu Glu Met Glu Lys Thr Ser Ala Leu Leu Gly Ala Arg Leu Lys Glu Leu Glu Gln Glu Ala His Phe Val Ala Gly Glu Arg Phe Leu lle Thr Ser Asn Asn Gln Leu Arg Glu lle Leu Phe Gly Lys Leu Lys Leu His Leu Leu Ser Gln Arg Asn Ser Leu Pro Arg 

Thr Gly Leu Gln Lys Tyr Pro Ser Thr Ser Glu Ala Val Asn Ile Gln

Gly Ile Ser Lys His Pro Ile Gln Ile Thr Thr Pro Lys Asn Phe Lys Gly Lys Glu Asp Lys 11e Leu Thr 11e Ser Pro Arg Ala Met Phe Val Ser Ser Lys Gly His Thr Phe Leu Ala Ala Asp Phe Ser Gln Ile Glu Leu Arg Ile Leu Thr His Leu Ser Gly Asp Pro Glu Leu Leu Lys Leu Phe Gln Glu Ser Glu Arg Asp Asp Val Phe Ser Thr Leu Thr Ser Gln Trp Lys Asp Val Pro Val Glu Gln Val Thr His Ala Asp Arg Glu Gln Thr Lys Lys Val Val Tyr Ala Val Val Tyr Gly Ala Gly Lys Glu Arg Leu Ala Ala Cys Leu Gly Val Pro Ile Gln Glu Ala Ala Gln Phe Leu Glu Ser Phe Leu Gln Lys Tyr Lys Lys Ile Lys Asp Phe Ala Arg Ala Ala Ile Ala Gln Cys His Gln Thr Gly Cys Val Val Ser Ile Met Gly Arg Arg Arg Pro Leu Pro Arg Ile His Ala His Asp Gln Gln Leu Arg Ala Gln Ala Glu Arg Gln Ala Val Asn Phe Val Val Gln Ala Gln Ser Gln His Leu Cys Val Glu Val Pro 

<210> 4719

<211> 123

<212> PRT

<213> Homo sapiens

<400> 4719

Met Pro Gly Pro Pro Gly Ser Leu Glu Met Gly Pro Leu Thr Phe Arg

1 5 10 15

Asp Val Ala Ile Glu Phe Ser Leu Glu Glu Trp Gln Cys Leu Asp Thr 25 Ala Gln Arg Asn Leu Tyr Arg Lys Val Met Phe Glu Asn Tyr Arg Asn 35 40 45 Leu Val Phe Leu Gly Ile Ala Val Ser Lys Pro His Leu Ile Thr Cys 55 60 Leu Glu Gln Gly Lys Glu Pro Trp Asn Arg Lys Arg Gln Glu Met Val 70 75 Ala Lys Pro Pro Glu Ser Tyr Cys Val Ala Gln Ala Asp Leu Glu Leu 85 Leu Val Ser Ser Tyr Leu Thr Ala Leu Ala Ser Leu Lys Met Trp Asp 105 Tyr Arg Asn Asn Pro Leu Cys Gln Ala Thr Met 120 115

<210> 4720

<211> 301

<212> PRT

<213> Homo sapiens

<400> 4720

 Met Ala Val Arg Pro Gly Leu Trp Pro Ala Leu Leu Gly Ile Val Leu

 1
 5
 10
 15

 Ala Ala Trp Leu Arg Gly Ser Gly Ala Gln Gln Ser Ala Thr Val Ala
 20
 25
 30

 Asn Pro Val Pro Gly Ala Asn Pro Asp Leu Leu Pro His Phe Leu Val
 35
 40
 45

Glu Pro Glu Asp Val Tyr Ile Val Lys Asn Lys Pro Val Leu Leu Val 50 55 60

Cys Lys Ala Val Pro Ala Thr Gln Ile Phe Phe Lys Cys Asn Gly Glu
65 70 75 80

Trp Val Arg Gln Val Asp His Val 11e Glu Arg Ser Thr Asp Gly Ser 85 90 95

Asn Gly Leu Pro Thr Met Glu Val Arg Ile Asn Val Ser Arg Gln Gln
100 105 110

Val Glu Lys Val Phe Gly Leu Glu Glu Tyr Trp Cys Gln Cys Val Ala Trp Ser Ser Ser Gly Thr Thr Lys Ser Gln Lys Ala Tyr lle Arg lle Ala Tyr Leu Arg Lys Asn Phe Glu Gln Glu Pro Leu Ala Lys Glu Val Ser Leu Glu Gln Gly Ile Val Leu Pro Cys Arg Pro Pro Glu Gly Ile Pro Pro Ala Glu Val Glu Trp Leu Arg Asn Glu Asp Leu Val Asp Pro Ser Leu Asp Pro Asn Val Tyr Ile Thr Arg Glu His Ser Leu Val Val Arg Gln Ala Arg Leu Ala Asp Thr Ala Asn Tyr Thr Cys Val Ala Łys Asn Ile Val Ala Arg Arg Arg Ser Ala Ser Ala Ala Val 11e Val Tyr Val Asp Gly Ser Trp Ser Pro Trp Ser Lys Trp Ser Ala Cys Gly Leu Asp Cys Thr His Trp Arg Ser Arg Glu Cys Ser Asp Pro Ala Pro Arg Asn Gly Gly Glu Glu Cys Gln Gly Thr Asp Leu Asp Thr Arg Asn Cys Thr Ser Asp Leu Cys Val His Ser Glu Ser Ser Leu Pro 

<210> 4721

<211> 101

<212> PRT

<213> Homo sapiens

<400> 4721

Met Leu Arg Glu Val Cys Val Cys Val Cys Val Cys Val Cys Val Cys I Cys Val Cys Val Cys I Cy

Pro Glu Ser Trp Arg Phe Thr Phe Cys Lys Gly Arg Gly His Ser Trp 40 Thr Val Thr Ile Pro Ile Leu Val Arg Val Ala Gly Thr Glu Gln Ser 50 55 His Gln His Ala Lys Val His Leu Gln Ser Ser Met His Ala Pro Arg 75 70 Lys Pro Pro Val Gly Tyr Ala Ser Cys Thr Phe Pro Phe Ser Leu Thr 90 Ser Val Ser Cys Leu 100 <210> 4722 <211> 116 <212> PRT <213> Homo sapiens <400> 4722 Met Thr Phe Arg Ser Gly Gly Gly Asp Ala Leu Gly Lys Ala Ala Cys 1 5 15 Leu Val Pro Ala Ala Ser Arg Pro Gln Ser Pro Ile Leu Gln Met Thr 25 Ser Arg Glu Val Thr Pro Gln Val Gly Asn Arg Ala Gly Phe Gly Ile 35 40 45 Arg Val Cys Leu Phe Pro Pro Arg Asp Pro Glu Ser Trp Gln Pro Val 60 55 Ser Lys Leu Leu Tyr Val His His Thr Ser Gly Phe Arg Phe Ile Gly 70 75 Val Phe Leu Lys Leu Arg Leu Val Ser Val Gln Leu Leu Leu Val Arg 90 85 His Leu Ser Tyr Thr Arg His Cys Pro Trp Cys Trp Arg His Ser Asn 100 105 110

Glu Glu Asp Arg 115

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<210> 4723
<211> 166
<212> PRT
<213> Homo sapiens
<400> 4723
Met Arg His Thr Ser Lys Arg Lys Pro Gln Tyr Tyr Glu Ala Glu Met
                  5
                                     10
Val Leu Lys Tyr Tyr Lys His Leu Glu Glu Gly Ser Val Ser Leu Cys
                                                      30
             20
                                 25
Cys Pro Gly Trp Ser Ala Val Ala Gln Ser Arg Leu Thr Ala Ala Ser
Thr Phe Gly Ala Gln Val IIe Leu Leu Phe Gln Leu Ser Glu Gln Leu
                         55
                                              60
Arg Leu Gln Glu Leu Lys Leu Pro Thr Phe Arg Ala His Ser Pro Leu
                                          75
 65
                     70
Leu Lys Ser Arg Arg Phe Phe Val Asp Ile Leu Thr Leu Leu Ser Ser
                                     90
                 85
His Cys Gln Leu Cys Pro Ala Ala Arg His Leu Ala Val Tyr Leu Leu
                                 105
                                                     110
            100
Asp His Phe Met Asp Arg Tyr Asn Val Thr Thr Ser Lys Gln Leu Tyr
                            120
Thr Val Ala Val Ser Cys Leu Leu Leu Ala Ser Arg Asn Lys Gly Ser
                        135
                                             140
Gly Ser Pro Val Pro Thr Arg Ser Ala Gln Gln Cys Arg Gln Thr Trp
                                                             160
145
                    150
                                         155
Ala Arg Gly Ser Pro Trp
                165
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<210> 4724

<211> 165

<212> PRT

<213> Homo sapiens

<400> 4724

Met Leu Phe Phe Asn Lys Lys Asn Phe Phe Asn His Gly Leu Ser Gly 10 Phe Ser Cys Pro Leu Asp Thr Phe Leu Cys Leu Ser Leu Ser Leu Phe 20 25 30 Pro Ala Leu His Arg Gly Pro Pro Gly Ser Arg Gly Pro Leu Ile Pro Pro Leu Leu Ser Leu Pro Pro Pro Pro Trp Gly Arg Gly Pro Ile Arg 55 Arg Gly Leu Gly Pro Arg Ser Ser Pro Tyr Gly Arg Gly Trp Trp Gly 70 75 Val Asn Ala Glu Pro Pro Phe Pro Gly Pro Gly His Gly Gly Pro Thr 90 Arg Gly Ser Phe His Lys Glu Gln Arg Asn Pro Arg Arg Leu Lys Ser 100 105 110 Trp Ser Leu Ile Lys Asn Thr Cys Pro Pro Lys Asp Asp Pro Gln Val 115 120 125 Met Glu Asp Lys Ser Asp Arg Pro Val Cys Arg His Phe Ala Lys Lys 135 Gly His Cys Arg Tyr Glu Asp Leu Cys Ala Phe Tyr His Pro Gly Val 145 150 160 Asn Gly Pro Pro Leu 165

<210> 4725

<211> 141

<212> PRT

<213> Homo sapiens

<400> 4725

Met Arg Asp Asn Ile Ile Ile Ser Gly Ser Thr Asp Arg Thr Leu Lys 1 5 10 15 15 Val Trp Asn Ala Glu Thr Gly Glu Cys Ile His Thr Leu Tyr Gly His 20 25 30 Thr Ser Thr Val Arg Cys Met His Leu His Glu Lys Arg Val Val Ser

35 40 45

Gly Ser Arg Asp Ala Thr Leu Arg Val Trp Asp Ile Glu Thr Gly Gln Cys Leu His Val Leu Met Gly His Val Ala Ala Val Arg Cys Val Gln Tyr Asp Gly Arg Arg Val Val Ser Gly Ala Tyr Asp Phe Met Val Lys Ala Trp Asp Pro Glu Thr Glu Thr Cys Leu His Thr Leu Gln Gly His Thr Asn Arg Val Tyr Ser Leu Gln Val Arg Ser Leu Ile Ser Pro Leu Asn Ala Leu Leu Met Asn His Lys Val Val Leu Leu Arg 

<210> 4726

<211> 326

<212> PRT

<213> Homo sapiens

<400> 4726 Met Asp Ala Ile Lys Lys Lys Met Gln Met Leu Lys Leu Asp Lys Glu Asn Ala Leu Asp Arg Ala Glu Gln Ala Glu Ala Asp Lys Lys Ala Ala Glu Asp Arg Ser Lys Gln Leu Glu Glu Asp lle Ala Ala Lys Glu Lys Leu Leu Arg Val Ser Glu Asp Glu Arg Asp Arg Val Leu Glu Glu Leu His Lys Ala Glu Asp Ser Leu Leu Ala Ala Glu Glu Ala Ala Ala Lys Leu Glu Asp Glu Leu Val Ser Leu Gln Lys Lys Leu Lys Gly Thr Glu Asp Glu Leu Asp Lys Tyr Ser Glu Ala Leu Lys Asp Ala Gln Glu Lys 

Leu Glu Leu Ala Glu Lys Lys Ala Thr Asp Ala Glu Ala Asp Val Ala

Ser Leu Asn Arg Arg Ile Gln Leu Val Glu Glu Leu Asp Arg Ala Gln Glu Arg Leu Ala Thr Ala Leu Gln Lys Leu Glu Glu Ala Glu Lys Ala Ala Asp Glu Ser Glu Arg Gly Met Lys Val Ile Glu Ser Arg Ala Gln Lys Asp Glu Glu Lys Met Glu Ile Gln Glu Ile Gln Leu Lys Glu Ala Lys His Ile Ala Glu Asp Ala Asp Arg Lys Tyr Glu Glu Val Ala Arg Lys Leu Val Ile Ile Glu Ser Asp Leu Glu Arg Ala Glu Glu Arg Ala Glu Leu Ser Glu Gly Lys Cys Ala Glu Leu Glu Glu Glu Leu Lys Thr Val Thr Asn Asn Leu Lys Ser Leu Glu Ala Gln Ala Glu Lys Tyr Ser Gln Lys Glu Asp Arg Tyr Glu Glu Glu Ile Lys Val Leu Ser Asp Lys Leu Lys Glu Ala Glu Thr Arg Ala Glu Phe Ala Glu Arg Ser Val Thr Lys Leu Glu Lys Ser Ile Asp Asp Leu Glu Glu Lys Val Ala His Ala Lys Glu Glu Asn Leu Ser Met His Gln Met Leu Asp Gln Thr Leu Leu Glu Leu Asn Asn Met 

<210> 4727

<211> 268

<212> PRT

<213> Homo sapiens

<400> 4727

Met Ala Ala Thr Gly Ala Val Ala Ala Ser Ala Ala Ser Gly Gln

1				5					10					15	
Ala	Glu	Gly	Lys	Lys	Πe	Thr	Asp	Leu	Arg	Val	lle	Asp	Leu	Lys	Ser
			20					25					30		
Glu	Leu	Lys	Arg	Arg	Asn	Leu	Asp	He	Thr	Gly	Val	Lys	Thr	Val	Leu
		35					40					45			
He	Ser	Arg	Leu	Lys	Gln	Ala	11e	Glu	Glu	Glu	Gly	Gly	Asp	Pro	Asp
	50					55					60				
Asn	Ile	Glu	Leu	Thr	Val	Ser	Thr	Gly	Thr	Pro	Asn	Lys	Lys	Pro	Thr
65					70					75					80
Lys	Gly	Lys	Gly	Lys	Lys	His	Glu	Ala	Asp	Glu	Leu	Ser	Gly	Asp	Ala
				85					90					95	
Ser	Val	Glu	Asp	Asp	Ala	Phe	lle	Lys	Asp	Gly	Glu	Glu	Glu	Glu	Asn
			100					105					110		
Glu	Lys	Gly	Ser	Leu	Ala	Glu	Ala	Asp	His	Thr	Ala	His	Glu	Glu	Met
		115					120					125			
Glu	Ala	His	Thr	Thr	Val	Lys	Glu	Ala	Glu	Asp	Asp	Asn	lle	Ser	Val
	130					135					140				
Thr	Ile	Gln	Ala	Glu	Asp	Ala	lle	Thr	Leu	Asp	Phe	Asp	Gly	Asp	Asp
145					150					155					160
Leu	Leu	G] u	Thr	Gly	Lys	Asn	Val	Lys	lle	Thr	Asp	Ser	Glu	Ala	Ser
				165					170					175	
Lys	Pro	Lys	Asp	Gly	Gln	Asp	Ala	He	Ala	Gln	Ser	Pro	Glu	Lys	Glu
			180					185					190		
Ser	Lys	Asp	Tyr	Glu	Met	Asn	Ala	Asn	His	Lys	Asp	Gly	Lys	Lys	Glu
		195					200					205			
Asp	Cys	Val	Lys	Gly	Asp	Pro	Val	Glu	Lys	Glu	Ala	Arg	Glu	Ser	Ser
	210					215					220				
Lys	Lys	Ala	Glu	Ser	Gly	Asp	Lys	Glu	Lys	Asp	Thr	Leu	Lys	Lys	G1 y
225					230					235					240
Pro	Ser	Ser	Thr	Gly	Ala	Ser	G1 y	Gln	Ala	Lys	Arg	Phe	Val	Phe	Leu
				245					250					255	
Cys	Gln	Phe	Phe	Thr	He	Leu	Asn	Ser	Ser	He	Gln				
			260					265							

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<210> 4728
<211> 105
<212> PRT
<213> Homo sapiens
<400> 4728
Met Thr Thr His Leu Tyr Asp Ala Pro Thr Val Lys Phe Leu Thr Pro
1
                  5
                                     10
Cys Tyr His Pro Asn Val Asp Thr Gln Gly Asn Ile Cys Leu Asp Ile
             20
                                 25
                                                      30
Leu Lys Glu Lys Trp Ser Ala Pro Tyr Asp Ile Arg Thr Ile Leu Leu
                             40
Ser 11e Gln Cys Leu Leu Gly Gln Leu Asn 11e Asp Ser Pro Leu Asn
    50
                         55
                                              60
Thr His Ala Thr Lys Leu Trp Glu Asn Pro lle Ala Leu Arg Ser Thr
                     70
                                          75
65
Cys Lys Gly Gln Ala Gln Trp Leu Thr Pro Val Ile Pro Ala Leu Trp
                 85
                                     90
                                                          95
Glu Ala Glu Val Gly Gly Trp Ile Thr
            100
                                 105
<210> 4729
<211> 336
<212> PRT
<213> Homo sapiens
<400> 4729
Met Lys Glu Arg Lys Arg His Leu Gly Asp Thr Lys His Phe Cys Pro
Ì
                  5
                                      10
                                                          15
Val Val Leu Lys Glu Asn Phe lle Leu Gln Pro Gly Asn Thr Glu Glu
                                 25
Ala Ala Lys Tyr Arg Glu Lys Ile Tyr Tyr Phe Ser Ser Ala Glu Ala
         35
                                                  45
                             40
Lys Glu Lys Phe Leu Glu His Pro Glu Asp Tyr Val Ala His Glu Glu
```

55

60

Pro	Leu	Lys	Ala	Pro	Pro	Leu	Arg	Пe	Cys	Leu	Val	Gly	Pro	Gln	Gly
65					70					75					80
Ser	Gly	Lys	Thr	Met	Cys	Gly	Arg	Gln	Leu	Ala	Glu	Lys	Leu	Asn	lle
				85					90					95	
Phe	His	He	Gln	Phe	Glu	Glu	Val	Leu	Gln	Glu	Lys	Leu	Leu	Leu	Lys
			100					105					110		
Thr	Glu	Lys	Lys	Val	Gly	Pro	Glu	Phe	Glu	Glu	Asp	Ser	Glu	Asn	Glu
		115					120					125			
Gln	Ala	Ala	Lys	G1n	Glu	Leu	Glu	Glu	Leu	Ala	Ile	Gln	Ala	Asn	Val
	130					135					140				
Lys	Val	Glu	Glu	Glu	Asn	Thr	Lys	Lys	Gln	Leu	Pro	Glu	Val	Gln	Leu
145					150					155					160
Thr	Glu	Glu	Glu	Glu	Val	lle	Lys	Ser	Ser	Leu	Met	Glu	Asn	Glu	Pro
				165					170					175	
Leu	Pro	Pro	Glu	He	Leu	Glu	Val	lle	Leu	Ser	Glu	Trp	Trp	Leu	Lys
			180					185					190		
Glu	Pro	Ile	Arg	Ser	Thr	Gly	Phe	Ile	Leu	Asp	Gly	Phe	Pro	Arg	Tyr
		195					200					205			
Pro	Glu	Glu	Ala	Gln	Phe	Leu	Gly	Asp	Arg	Gly	Phe	Phe	Pro	Asp	Ala
	210					215					220				
Ala	Val	Phe	lle	Gln	Val	Asp	Asp	Gln	Asp	He	Phe	Asp	Arg	Leu	Leu
225					230					235					240
Pro	Ala	Gln	lle	Glu	Lys	Trp	Lys	Leu	Lys	Gln	Lys	Lys	Lys	Leu	Glu
				245					250					255	
Arg	Lys	Lys	Leu	He	Lys	Asp	Met	Lys	Ala	Lys	He	Arg	Val	Asp	Thr
			260					265					270		
He	Ala		Arg	Arg	Ala	Glu		lle	Leu	Glu	Arg		Lys	Lys	Arg
		275					280					285			
Arg		Val	Ser	Ser	Phe		Phe	Phe	Phe	Lys	Thr	Gly	Ser	His	Ser
	290					295					300				
Va]	Ala	Gln	Gly	Arg		Gln	Trp	His	Asn		Ser	Ser	Leu	Gln	
305					310					315					320
Arg	Thr	Pro	Gly	Leu	Lys	Gly	Ser	Ser		Leu	Ser	Leu	Ser		Cys
				325					330					335	

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<210> 4730
<211> 438
<212> PRT
<213> Homo sapiens
<400> 4730
Met His Pro Leu Pro Gly Tyr Trp Ser Cys Tyr Cys Leu Leu Leu Leu
                  5
                                     10
Phe Ser Leu Gly Val Gln Gly Ser Leu Gly Ala Pro Ser Ala Ala Pro
             20
                                 25
                                                      30
Glu Gln Val His Leu Ser Tyr Pro Gly Glu Pro Gly Ser Met Thr Val
Thr Trp Thr Trp Val Pro Thr Arg Ser Glu Val Gln Phe Gly Leu
                         55
                                              60
Gln Pro Ser Gly Pro Leu Pro Leu Arg Ala Gln Gly Thr Phe Val Pro
                     70
                                          75
Phe Val Asp Gly Gly Ile Leu Arg Arg Lys Leu Tyr Ile His Arg Val
                                     90
                 85
Thr Leu Arg Lys Leu Leu Pro Gly Val Gln Tyr Val Tyr Arg Cys Gly
            100
                                 105
                                                     110
Ser Ala Gln Gly Trp Ser Arg Arg Phe Arg Phe Arg Ala Leu Lys Asn
                            120
Gly Ala His Trp Ser Pro Arg Leu Ala Val Phe Gly Asp Leu Gly Ala
                        135
                                             140
Asp Asn Pro Lys Ala Val Pro Arg Leu Arg Arg Asp Thr Gln Gln Gly
                    150
                                         155
                                                             160
145
Met Tyr Asp Ala Val Leu His Val Gly Asp Phe Ala Tyr Asn Leu Asp
                165
                                     170
Gln Asp Asn Ala Arg Val Gly Asp Arg Phe Met Arg Leu Ile Glu Pro
                                                     190
            180
                                 185
Val Ala Ala Ser Leu Pro Tyr Met Thr Cys Pro Gly Asn His Glu Glu
                            200
                                                 205
Arg Tyr Asn Phe Ser Asn Tyr Lys Ala Arg Phe Ser Met Pro Gly Asp
    210
                        215
                                             220
Asn Glu Gly Leu Trp Tyr Ser Trp Asp Leu Gly Pro Ala His 11e 11e
```

Ser Phe Ser Thr Glu Val Tyr Phe Phe Leu His Tyr Gly Arg His Leu Val Gln Arg Gln Phe Arg Trp Leu Glu Ser Asp Leu Gln Lys Ala Asn Lys Asn Arg Ala Ala Arg Pro Trp Ile Ile Thr Met Gly His Arg Pro Met Tyr Cys Ser Asn Ala Asp Leu Asp Asp Cys Thr Arg His Glu Ser Lys Val Arg Lys Gly Leu Gln Gly Lys Leu Tyr Gly Leu Glu Asp Leu Phe Tyr Lys Tyr Gly Val Asp Leu Gln Leu Trp Ala His Glu His Ser Tyr Glu Arg Leu Trp Pro Ile Tyr Asn Tyr Gln Val Phe Asn Gly Ser Arg Glu Met Pro Tyr Thr Asn Pro Arg Gly Pro Val His Ile Ile Thr Gly Ser Ala Gly Cys Glu Glu Arg Leu Thr Pro Phe Ala Val Phe Pro Arg Pro Trp Ser Ala Val Arg Val Lys Glu Tyr Gly Tyr Thr Arg Leu His lle Leu Asn Gly Thr His Thr His lle Gln Gln Val Ser Asp Asp Gln Asp Gly Lys lle Val Asp Asp Val Trp Val Val Arg Pro Leu Phe Gly Arg Arg Met Tyr Leu 

<210> 4731

<211> 607

<212> PRT

<213> Homo sapiens

<400> 4731

Met Ala Glu Glu Gly Ala Ile Leu Lys Val Thr Lys Asp Leu Arg Ala

1				5					10					15	
Ala	Val	Ser	Ala	He	Leu	Gln	Gly	Tyr	Gly	Asp	Gly	Gln	Gly	Pro	Va]
			20					25					30		
Thr	Asp	Thr	Ser	Ala	Glu	Leu	His	Arg	Leu	Cys	Gly	Cys	Leu	Glu	Leu
		35					40					45			
Leu	Leu	Gln	Phe	Asp	Gln	Lys	Glu	Gln	Lys	Ser	Phe	Leu	Gly	Pro	Arg
	50					55					60				
Lys	Asp	Tyr	Trp	Asp	Phe	Leu	Cys	Thr	Ala	Leu	Λrg	Arg	Gln	Arg	Gly
65					70					75					80
Asn	Met	Glu	Pro	He	His	Phe	Val	Arg	Ser	Gln	Asp	Lys	Leu	Lys	Thr
				85					90					95	
Pro	Leu	Gly	Lys	Gly	Arg	Ala	Phe	He	Arg	Phe	Cys	Leu	Ala	Arg	Gly
			100					105					110		
Gln	Leu	Ala	Glu	Ala	Leu	Gln	Leu	Cys	Leu	Leu	Asn	Ser	Glu	Leu	Thr
		115					120					125			
Arg	Glu	Trp	Tyr	Gly	Pro	Arg	Ser	Pro	Leu	Leu	Cys	Pro	Glu	Arg	Gln
	130					135					140				
Glu	Asp	Ile	Leu	Asp	Ser	Leu	Tyr	Ala	Leu	Asn	Gly	Val	Ala	Phe	Glu
145					150					155					160
Leu	Asp	Leu	Gln	Gln	Pro	Asp	Leu	Asp	Gly	Ala	Trp	Pro	Met	Phe	Ser
				165					170					175	
Glu	Ser	Arg	Cys	Ser	Ser	Ser	Thr	Gln	Thr	Gln	Gly	Arg	Arg	Pro	Arg
			180					185					190		
Lys	Asn	Lys	Asp	Ala	Pro	Lys	Lys	Val	Pro	Leu	Pro	Cys	Leu	His	Ser
		195					200					205			
Glu	Leu	Pro	Leu	Pro	His	Leu	Leu	Gly	He	Leu	Lys	Пe	Pro	Ala	Ala
	210					215					220				
Tyr	Gly	Gly	Pro	Glu	Asn	Val	Gln	He	Glu	Asp	Ser	His	Thr	Ser	Gln
225					230					235					240
Ala	He	Cys	Leu	Gln	Asp	Ala	Pro	Ser	Gly	Gln	Gln	Leu	Ala	Gly	Leu
				245					250					255	
Pro	Arg	Ser	Gln	Gln	Gln	Arg	His	Leu	Pro	Phe	Phe	Leu	Glu	Lys	Lys
			260					265					270		
G1 y	Glu	Ser	Ser	Arg	Lys	His	Arg	Tyr	Pro	G1n	Ser	Met	Trp	Glu	Pro
		275					280					285			
Glu	Gly	Lys	Glu	Leu	Gln	Leu	Asp	Gln	$Gl\mathbf{u}$	Glu	Arg	Ala	Pro	Trp	]]e

	290					295					300				
Glu	He	Phe	Leu	G1 y	Asn	Ser	Thr	Pro	Ser	Thr	Gln	Gly	Gln	Gly	Lys
305					310					315					320
Gly	Ala	Met	Gly	Thr	Gln	Lys	Glu	Val	He	Gly	Met	G] u	Ala	Glu	Val
				325					330					335	
Thr	Gly	Val	Leu	Leu	Val	Ala	Glu	Gly	Gln	Arg	Thr	Thr	Glu	Gly	Thr
			340					345					350		
His	Lys	Lys	Glu	Ala	Glu	Trp	Ser	His	Val	Gln	Arg	Leu	Leu	Met	Pro
		355					360					365			
Ser	Pro	Arg	Gly	Ala	Val	Glu	Gly	Ala	Val	Ser	Gly	Ser	Arg	Gln	Gly
	370					375					380				
Ser	Gly	Gly	Ser	Ser	lle	Leu	Gly	Glu	Pro	Trp	Val	Leu	Gln	Gly	His
385					390					395					400
Ala	Thr	Lys	Glu	Asp	Ser	Thr	Val	Glu	Asn	Pro	Gln	Val	Gln	Thr	Glu
				405					410					415	
Val	Thr	Leu	Val	Ala	Arg	Arg	Glu	Glu	Gln	Ala	Glu	Val	Ser	Leu	Gln
			420					425					430		
Asp	Glu	He	Lys	Ser	Leu	Arg	Leu	Gly	Leu	Arg	Lys	Ala	Glu	Glu	Gln
		435					440					445			
Ala	Gln	Arg	Gln	Glu	Gln	Leu	Leu	Arg	Glu	Gln	Glu	Gly	Glu	Leu	Gln
	450					455					460				
Ala	Leu	Arg	Glu	Gln	Leu	Ser	Arg	Cys	Gln	Glu	Glu	Arg	Ala	6] u	Leu
465					470					475					480
G]n	Ala	Gln	Leu	Glu	Gln	Lys	Gln	Gln	Glu	Ala	Glu	Arg	Arg	Asp	Ala
				485					490					495	
Met	Tyr	Gln	Glu	Glu	Leu	Gly	Gly	Gln	Arg	Asp	Leu	Val	Gln	Ala	Met
			500					505					510		
Lys	Arg		Val	Leu	Glu	Leu		Gln	Glu	Lys	Asp		Leu	Trp	Gln
		515					520					525			
Arg		Gln	His	Leu	Ser		Met	Ala	Pro	Glu		Cys	Val	Ala	Cys
	530					535					540				
	Lys	He	Phe	Gly		Phe	Ser	Arg	Arg		Pro	Cys	Ser	Ala	
545			0.		550				Б	555	0.7				560
Thr	Ser	Leu	Gly		Glu	Glu	Ser	Glu		Pro	Gly	G] u	Ala	Ala	Met
T		Tr.		565	<b>T</b>		0.1		570	C	0.1		15	575	C.1
Trp	Arg	Trp	Arg	Leu	Trp	Arg	Gly	Arg	Ala	5er	GIv	His	Pro	Ser	GLy

580 585 590

Glu Gly Arg Pro Pro Glu Thr Asn Gln Gly His Ser Thr Gly Arg
595 600 605

<210> 4732
<211> 148

<213> Homo sapiens

<400> 4732

<212> PRT

Met Ser Cys Asn Leu Ala Ser Leu Cys Ser Lys Val Leu Glu Gln Gly I 5 10 15

Ala Tyr His Pro 11e Leu 11e Pro Ser Pro Leu Ser Pro Pro Trp Thr
20 25 30

His Cys Ala Gln His Leu Arg Pro Cys Thr Cys Lys Gly Ser Ser His
35 40 45

Tyr Gly Asp Gln Gln Pro Arg Ser Gln Val Leu Asn Ser Lys Met Leu 50 55 60 .

Leu Ser Ala Ser Val Leu Asp Leu Ser Ser Val Asp Ser Asp Ala Phe
65 70 75 80

Glu Ile Leu Leu Ser Leu Ala Ser Ile Ala Ile Arg Thr Pro Arg Val 85 90 95

Cys His Pro Leu Leu Pro Leu His Phe 11e Leu Leu His Lys Gly Gln 100 105 110

Pro Ser His Val Glu Val Leu Trp Asp Ala Ala Trp Leu Phe Phe lle 115 120 125

Val Asp Leu Met Phe Ser Ser Ile Leu Leu Cys Thr Phe Leu Arg Leu 130 135 140

Gln Tyr Phe Val

145

<210> 4733

<211> 392

<212> PRT

## <213> Homo sapiens

<400	)> 47	733													
Met	Gln	Pro	Leu	Thr	Lys	Asp	Ala	Gly	Met	Ser	Leu	Ser	Ser	Val	Thr
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Leu	Ala	Ser	Ala	Leu	Gln	Val	Arg	Gly	Glu	Ala	Leu	Ser	Glu	Glu	Glu
			20					25					30		
He	Trp	Ser	Leu	Leu	Phe	Leu	Ala	Ala	Glu	Gln	Leu	Leu	Glu	Asp	Leu
		35					40					45			
Arg	Asn	Asp	Ser	Ser	Asp	Tyr	Val	Va]	Cys	Pro	Trp	Ser	Ala	Leu	Leu
	50					55					60				
Ser	Ala	Ala	Gly	Ser	Leu	Ser	Phe	Gln	Gly	Arg	Val	Ser	His	Ile	Glu
65					70					75					80
Ala	Ala	Pro	Phe	Lys	Ala	Pro	Glu	Leu	Leu	Gln	Gly	Gln	Ser	Glu	Asp
				85					90					95	
Glu	Gln	Pro	Asp	Ala	Ser	Gln	Met	His	Va]	Tyr	Ser	Leu	Gly	Met	Thr
			100					105					110		
Leu	Tyr	Trp	Ser	Ala	Gly	Phe	His	Val	Pro	Pro	His	Gln	Pro	Leu	Gln
		115					120					125			
Leu	Cys	Glu	Pro	Leu	His	Ser	He	Leu	Leu	Thr	Met	Cys	Glu	Asp	Gln
	130					135					140				
Pro	His	Arg	Arg	Cys	Thr	Leu	Gln	Ser	Val	Leu	Glu	Ala	Cys	Arg	Val
145					150					155					160
His	Glu	Lys	Glu	Val	Ser	Val	Tyr	Pro	Ala	Pro	Ala	Gly	Leu	His	He
				165					170					175	
Arg	Arg	Leu	Val	Gly	Leu	Val	Leu	Gly	Thr	lle	Ser	Glu	Val	Glu	Lys
			180					185					190		
Arg	Val	Val	Glu	Glu	Ser	Ser		Val	Gln	Gln	Asn		Ser	Tyr	Leu
		195					200					205			
Leu	_	Lys	Arg	Leu	Arg		Thr	Ser	Ser	61u		Pro	Ala	Ala	Gln
	210					215					220				
	Pro	Glu	Cys	Leu		Pro	Cys	Arg	Val		Glu	Arg	Ser	Thr	
225					230				_	235				_	240
Thr	GIn	Ser	Ser		Glu	Pro	His	Trp		Thr	Leu	Thr	His	Ser	His
0				245				•	250	6.1			Б	255	
Cys	Ser	Leu	Leu	Val	Asn	Arg	Ala	Leu	Pro	ыу	Ala	Asp	Pro	Gln	Asp

	260			265					270		
Gln Gln Ala	Gly Arg	Arg Leu	Ser	Ser	Gly	Ser	Val	His	Ser	Ala	Ala
275			280					285			
Asp Ser Ser	Trp Pro	Thr Thr	Pro	Ser	Gln	Arg	Gly	Phe	Leu	Gln	Arg
290		295					300				
Arg Ser Lys	Phe Ser	Arg Pro	Glu	Phe	11e	Leu	Leu	Ala	Gly	Glu	Ala
305		310				315					320
Pro Met Thr	Leu His	Leu Pro	Gly	Ser	Val	Val	Thr	Lys	Lys	Gly	Lys
	325				330					335	
Ser Tyr Leu	Ala Leu	Arg Asp	Leu	Cys	Val	Val	Leu	Leu	Asn	Gly	Gln
	340			345					350		
His Leu Glu	Val Lys	Cys Asp	Va]	Glu	Ser	Thr	Val	Gly	Ala	Val	Phe
355			360					365			
Asn Ala Val	Thr Ser	Phe Ala	Asn	Leu	Glu	Glu	Leu	Thr	Tyr	Phe	Gly
370		375					380				
Leu Ala Tyr	Met Lys	Ser Gly	Glu								
385		390									
•											

<210> 4734

<211> 357

<212> PRT

<213> Homo sapiens

<400> 4734

Met Pro Glu Cys Trp Asp Gly Glu His Asp Ile Glu Thr Pro Tyr Gly 10 Leu Leu His Val Val Ile Arg Gly Ser Pro Lys Gly Asn Arg Pro Ala 20 25 30 lle Leu Thr Tyr His Asp Val Gly Leu Asn Arg Lys Cys Ser Pro Ala 35 40 45 Ser Val Ser Pro Pro Leu Pro Pro Ile Ser Gln Ser Asp Lys Leu Cys 55 Phe Asn Thr Phe Phe Asn Phe Glu Asp Met Gln Glu lle Thr Lys His 75 65 70 80

Phe Val Val Cys His Val Asp Ala Pro Gly Gln Gln Val Gly Ala Ser

				85					90					95	
Gln	Phe	Pro	Gln	Gly	Tyr	Gln	Phe	Pro	Ser	Met	Glu	Gln	Leu	Ala	Ala
			100					105					110		
Met	Leu	Pro	Ser	Val	Val	Gln	His	Phe	Gly	Phe	Lys	Tyr	Val	He	Gly
		115					120					125			
Ile	Gly	Val	Gly	Ala	Gly	Ala	Tyr	Val	Leu	Ala	Lys	Phe	Ala	Leu	He
	130					135					140				
Phe	Pro	Asp	Leu	Val	Glu	Gly	Leu	Val	Leu	Val	Asn	He	Asp	Pro	Asn
145					150					155					160
Gly	Lys	Gly	Trp	Ile	Asp	Trp	Ala	Ala	Thr	Lys	Leu	Ser	Gly	Leu	Thr
				165					170					175	
Ser	Thr	Leu	Pro	Asp	Thr	Val	Leu	Ser	His	Leu	Phe	Ser	Gln	Glu	Glu
			180					185					190		
Leu	Val	Asn	Asn	Thr	Glu	Leu	Val	Gln	Ser	Tyr	Arg	Gln	Gln	Ile	Gly
		195					200					205			
Asn	Val	Val	Asn	Gln	Ala	Asn	Leu	Gln	Leu	Phe	Trp	Asn	Met	Tyr	Asn
	210					215					220				
Ser	Arg	Arg	Asp	Leu	Asp	Ile	Asn	Arg	Pro	Gly	Thr	Val	Pro	Asn	Ala
225					230					235					240
Lys	Thr	Leu	Arg	Cys	Pro	Val	Met	Leu	Val	Val	Gly	Asp	Asn	Ala	Pro
				245					250					255	
Ala	Glu	Asp	Gly	Val	Val	Glu	Cys	Asn	Ser	Lys	Leu	Asp	Pro	Thr	Thr
			260					265					270		
Thr	Thr	Phe	Leu	Lys	Met	Ala	Asp	Ser	G1 y	Gly	Leu	Pro	Gln	Val	Thr
		275					280					285			
Gln	Pro	Gly	Lys	Leu	Thr	Glu	Ala	Phe	Lys	Tyr	Phe	Leu	Gln	Gly	Met
	290					295					300				
	Tyr	Met	Pro	Ser		Ser	Met	Thr	Arg		Ala	Arg	Ser	Arg	
305					310					315					320
Ala	Ser	Leu	Thr		Ala	Ser	Ser	Val		Gly	Ser	Arg	Pro		Ala
				325					330					335	
Cys	Thr	His		Glu	Ser	Ser	Glu		Leu	Gly	GIn	Val	Asn	His	Thr
			340					345					350		
Met	Glu	Val	Ser	Cys											
		355													

<210> 4735 〈211〉 357 <212> PRT <213> Homo sapiens <400> 4735 Met Ser Pro Gly Pro Thr Asn Phe Phe Val Phe Leu Leu Glu Met Gly Phe His His Ala Gly Arg Val Gly Pro Glu Leu Leu Thr Ser Gly Asp Pro Leu Ala Ser Ala Ser Gln Ser Ala Gly Ile Thr Glu Thr Glu Gly Ser Glu Glu Asp Asp Lys Glu Asn Asp Lys Thr Glu Glu Met Pro Asn Asp Ser Val Leu Glu Asn Lys Ser Leu Gln Glu Asn Glu Glu Glu Ile Gly Asn Leu Glu Leu Ala Trp Asp Met Pro Asp Leu Ala Lys Ile Ile Phe Lys Arg Gln Glu Thr Lys Glu Ala Gln Leu Tyr Ala Ala Gln Ala His Leu Lys Leu Gly Glu Val Ser Val Glu Ser Glu Asn Tyr Val Gln Ala Val Glu Glu Phe Gln Ser Cys Leu Asn Leu Gln Glu Gln Tyr Leu Glu Ala His Asp Arg Leu Leu Ala Glu Thr His Tyr Gln Leu Gly Leu Ala Tyr Gly Tyr Asn Ser Gln Tyr Asp Glu Ala Val Ala Gln Phe Ser Lys Ser Ile Glu Val lle Glu Asn Arg Met Ala Val Leu Asn Glu Gln Val Lys Glu Ala Glu Gly Ser Ser Ala Glu Tyr Lys Lys Glu Ile Glu Glu Leu Lys Glu Leu Leu Pro Glu Ile Arg Glu Lys Ile Glu Asp

Ala Lys Glu Ser Gln Arg Ser Gly Asn Val Ala Glu Leu Ala Leu Lys 225 230 235 240 Ala Thr Leu Val Glu Ser Ser Thr Ser Gly Phe Thr Pro Gly Gly Gly 250 255 245 Gly Ser Ser Val Ser Met Ile Ala Ser Arg Lys Pro Thr Asp Gly Ala 260 265 Ser Ser Ser Asn Cys Val Thr Asp Ile Ser His Leu Val Arg Lys Lys 280 275 285 Arg Lys Pro Glu Glu Glu Ser Pro Arg Lys Asp Asp Ala Lys Lys Ala 290 295 Lys Gln Glu Pro Glu Val Asn Gly Gly Ser Gly Asp Ala Val Pro Ser 315 Gly Asn Glu Val Ser Glu Asn Met Glu Glu Glu Ala Glu Asn Gln Ala 335 325 330 Glu Ser Arg Ala Ala Val Glu Gly Thr Val Glu Ala Gly Ala Thr Val 340 345 350 Glu Ser Thr Ala Cys 355

<210> 4736

<211> 217

<212> PRT

<213> Homo sapiens

<400> 4736

Met Leu Ser Leu Gln Asp Ser Val Phe Phe Glu IIe Ser IIe Lys Ser I 5 10 15

Leu Leu Lys Ser Trp Ser Ser Ser Ser Ser Ala Pro Val Ser Lys Val
20 25 30

Asn Lys Tyr Cys Ala Ser Ser Asn Phe His Ser Thr Trp Gly Lys Lys

35
40
45

Asn Ile Ile Met Ser Asn Ile Thr Ile Asp Pro Asp Val Lys Pro Gly
50 55 60

Glu Tyr Val Ile Lys Ser Leu Phe Ala Glu Phe Ala Val Gln Ala Glu 65 70 75 80 Lys Lys Ile Glu Val Val Met Ala Glu Pro Leu Glu Lys Leu Leu Ser 90 Arg Ser Leu Gln Arg Gly Glu Asp Leu Gln Phe Asp Gln Leu Ile Ser 100 105 110 Ser Met Ser Ser Val Ala Glu His Cys Leu Pro Ser Leu Leu Arg Thr 120 Leu Phe Asp Trp Tyr Arg Arg Gln Asn Gly Thr Glu Asp Glu Ser Tyr 135 140 Glu Tyr Arg Pro Arg Ser Ser Thr Lys Ser Lys Gly Asp Glu Gln Gln 150 155 160 145 Arg Glu Arg Asp Tyr Leu Leu Glu Arg Arg Asp Leu Ala Val Asp Phe 170 165 Ile Phe Cys Leu Val Leu Val Glu Val Leu Lys Gln Val Ser Ser Phe 185 190 Ile Ser Ala Lys Ser Val Phe Leu Ile Leu Cys Leu Leu Cys Leu Arg 195 200 205 Val Ser Val Thr Leu Arg Cys Cys Val 210 215

<210> 4737

<211> 908

<212> PRT

<213> Homo sapiens

<400> 4737

Met Gly Val Asn Asp Leu Trp Gln 11e Leu Glu Pro Val Lys Gln His 1 5 10 15

Ile Pro Leu Arg Asn Leu Gly Gly Lys Thr Ile Ala Val Asp Leu Ser 20 25 30

Leu Trp Val Cys Glu Ala Gln Thr Val Lys Lys Met Met Gly Ser Val
35 40 45

Met Lys Pro His Leu Arg Asn Leu Phe Phe Arg Ile Ser Tyr Leu Thr
50 55 60

Gln Met Asp Val Lys Leu Val Phe Val Met Glu Gly Glu Pro Pro Lys 65 70 75 80

Leu	Lys	Ala	Asp	Val	Ile	Ser	Lys	Arg	Asn	Gln	Thr	Arg	Tyr	Gly	Ser
				85					90					95	
Ser	Gly	Lys	Ser	Trp	Ser	Gln	Lys	Thr	Gly	Arg	Ser	His	Phe	Lys	Ser
			100					105					110		
Val	Leu	Arg	Glu	Cys	Leu	His	Met	Leu	Glu	Cys	Leu	Gly	Пe	Pro	Trp
		115					120					125			
Val	Gln	Ala	Ala	Gly	Glu	Ala	Glu	Ala	Met	Cys	Ala	Tyr	Leu	Asn	Ala
	130					135					140				
G1y	Gly	His	Val	Asp	Gly	Cys	Leu	Thr	Asn	Asp	Gly	Asp	Thr	Phe	Leu
145					150					155					160
Tyr	Gly	Ala	G1n	Thr	Val	Tyr	Arg	Asn	Phe	Thr	Met	Asn	Thr	Lys	Asp
				165					170					175	
Pro	His	Val	Asp	Cys	Tyr	Thr	Met	Ser	Ser	He	Lys	Ser	Lys	Leu	G1y
			180					185					190		
Leu	Asp	Arg	Asp	Ala	Leu	Val	Gly	Leu	Ala	Ile	Leu	Leu	Gly	Cys	Asp
		195					200					205			
Tyr	Leu	Pro	Lys	Gly	Val	Pro	Gly	Val	Gly	Lys	Glu	Gln	Ala	Leu	Lys
	210					215					220				
Leu	Ile	Gln	Ile	Leu	Lys	Gly	Gln	Ser	Leu	Leu	Gln	Arg	Phe	Asn	Arg
225					230					235					240
Trp	Asn	Glu	Thr	Ser	Cys	Asn	Ser	Ser	Pro	Gln	Leu	Leu	Val	Thr	Lys
				245					250					255	
Lys	Leu	Ala	His	Cys	Ser	Va]	Cys	Ser	His	Pro	Gly	Ser	Pro	Lys	Asp
			260					265					270		
His	Glu	Arg	Asn	Gly	Cys	Arg	Leu	Cys	Lys	Ser	Asp	Lys	Tyr	Cys	Glu
		275					280					285			
Pro	His	Asp	Tyr	Glu	Tyr	Cys	Cys	Pro	Cys	Glu	Trp	His	Arg	Thr	Glu
	290					295					300				
His	Asp	Arg	G1n	Leu	Asn	Glu	Val	Glu	Asn		He	Lys	Lys	Lys	
305					310					315					320
Cys	Cys	Cys	Glu	Gly	Phe	Pro	Phe	His	Glu	Val	He	Gln	Glu		Leu
				325					330					335	
Leu	Asn	Lys		Lys	Leu	Val	Lys		He	Arg	Tyr	Gln		Pro	Asp
			340					345					350		
Leu	Leu		Phe	Gln	Arg	Phe		Leu	Glu	Lys	Met		Trp	Pro	Asn
		355					360					365			

His		Ala	Cys	Glu	Lys		Leu	Val	Leu	Leu		His	Tyr	Asp	Met
	370					375					380		0.7		
	Glu	Arg	Lys	Leu	Gly	Ser	Arg	Asn	Ser		GIn	Leu	GIn	Pro	
385					390					395					400
Arg	lle	Val	Lys		Arg	He	Arg	Asn		Val	His	Cys	Phe		He
				405					410					415	
Glu	Trp	Glu	Lys	Pro	Glu	His	Tyr	Ala	Met	Glu	Asp	Lys	Gln	His	Gly
			420					425					430		
Glu	Phe	Ala	Leu	Leu	Thr	Ile	Glu	Glu	Glu	Ser	Leu	Phe	Glu	Ala	Ala
		435					440					445			
Tyr	Pro	Glu	He	Val	Ala	Val	Tyr	Gln	Lys	Gln	Lys	Leu	Glu	Пe	Lys
	450					455					460				
Gly	Lys	Lys	Gln	Lys	Arg	lle	Lys	Pro	Lys	Glu	Asn	Asn	Leu	Pro	Glu
465					470					475					480
Pro	Asp	Glu	Val	Met	Ser	Phe	Gln	Ser	His	Met	Thr	Leu	Lys	Pro	Thr
				485					490					495	
Cys	Glu	lle	Phe	His	Lys	Gln	Asn	Ser	Lys	Leu	Asn	Ser	Gly	lle	Ser
			500					505					510		
Pro	Asp	Pro	Thr	Leu	Pro	Gln	Glu	Ser	Ile	Ser	Ala	Ser	Leu	Asn	Ser
		515					520					525			
Leu	Leu	Leu	Pro	Lys	Asn	Thr	Pro	Cys	Leu	Asn	Ala	Gln	Glu	Gln	Phe
	530					535					540				
Met	Ser	Ser	Leu	Arg	Pro	Leu	Ala	lle	Gln	Gln	Πe	Lys	Ala	Val	Ser
545					550					555					560
Lys	Ser	Leu	lle	Ser	Glu	Ser	Ser	Gln	Pro	Asn	Thr	Ser	Ser	His	Asn
				565					570					575	
lle	Ser	Val	lle	Ala	Asp	Leu	His	Leu	Ser	Thr	Ile	Asp	Trp	Glu	Gly
			580					585					590		
Thr	Ser	Phe	Ser	Asn	Ser	Pro	Ala	He	Gln	Arg	Asn	Thr	Phe	Ser	His
		595					600					605			
Asp	Leu	Lys	Ser	Glu	Val	Glu	Ser	Glu	Leu	Ser	Ala	He	Pro	Asp	Gly
	610					615					620				
Phe	Glu	Asn	He	Pro	Glu	Gln	Leu	Ser	Cys	Glu	Ser	Glu	Arg	Tyr	Thr
625					630					635					640
Ala	Asn	lle	Lys	Lys	Val	Leu	Asp	Glu	Asp	Ser	Asp	Gly	lle	Ser	Pro
				645					650					655	

Glu	Glu	His	Leu	Leu	Ser	Gly	He	Thr	Asp	Leu	Cys	Leu	Gln	Asp	Leu
			660					665					670		
Pro	Leu	Lys	Glu	Arg	He	Phe	Ile	Lys	Leu	Ser	Tyr	Pro	Gln	Asp	Asn
		675					680					685			
Leu	Gln	Pro	Asp	Val	Asn	Leu	Lys	Thr	Leu	Ser	11e	Leu	Ser	Val	Lys
	690					695					700				
Glu	Ser	Cys	lle	Ala	Asn	Ser	Gly	Ser	Asp	Cys	Thr	Ser	His	Leu	Ser
705					710					715					720
Lys	Asp	Leu	Pro	Gly	Ile	Pro	Leu	Gln	Asn	Glu	Ser	Arg	Asp	Ser	Lys
				725					730					735	
Ile	Leu	Lys	Gly	Asp	Gln	Leu	Leu	Gln	Glu	Asp	Tyr	Lys	Val	Asn	Thr
			740					745					750		
Ser	Val	Pro	Tyr	Ser	Val	Ser	Asn	Thr	Val	Val	Lys	Thr	Cys	Asn	Val
		755					760					765			
Arg	Pro	Pro	Asn	Thr	Ala	Leu	Asp	His	Ser	Arg	Lys	Val	Asp	Met	Gln
	770					775					780				
Thr	Thr	Arg	Lys	Ile	Leu	Met	Lys	Lys	Ser	Val	Cys	Leu	Asp	Arg	His
785					790					795					800
Ser	Ser	Asp	Glu	Gln	Ser	Ala	Pro	Val	Phe	Gly	Lys	Ala	Lys	Tyr	Thr
				805					810					815	
Thr	Gln	Arg	Met	Lys	His	Ser	Ser	Gln	Lys	His	Asn	Ser	Ser	His	Phe
			820					825					830		
Lys	Glu	Ser	Gly	His	Asn	Lys	Leu	Ser	Ser	Pro	Lys	He	His	Ile	Lys
		835					840					845			
Glu	Thr	Glu	Gln	Cys	Val	Arg	Ser	Tyr	Glu	Thr	Ala	Glu	Asn	Glu	Glu
	850					855					860				
Ser	Cys	Phe	Pro	Asp	Ser	Thr	Lys	Ser	Ser	Leu	Ser	Ser	Leu	Gln	Cys
865					870					875					880
His	Lys	Lys	Glu	Asn	Asn	Ser	Gly	Thr	Cys	Leu	Asp	Ser	Pro	Leu	Pro
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Leu	Cys	Gln	Arg	Leu	Lys	Leu	Arg	Phe	Gln	Ser	Thr				
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<210> 4738

<211> 637

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<212> PRT
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         35
                             40
                         55
                     70
                 85
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Pro Leu Thr Pro Ser Lys Asn Arg Phe His Phe Val Ser Tyr Phe Glu Asn Val Asn Phe Met Leu Cys Trp Leu Gln Glu Asn Asn Phe Cys Leu Leu Leu Cys Phe Leu Ser Gly Leu Leu Ser Arg His Lys Thr Lys Lys Leu Ser Ser Glu Lys Asp Ile His Glu Ile Ser Leu Ser Lys Glu Ser lle lle Glu Lys Ser Lys Thr Leu Arg Leu Lys Gly Ser lle Phe Arg Asn Glu Trp Gln Asn Lys Ser Glu Phe Glu Gly Gln Gln Gly Leu Lys Glu Arg Ser Ile Ser Gln Lys Lys Ile Val Ser Lys Lys Met Ser Thr Asp Arg Lys Arg Pro Ser Phe Thr Leu Asn Gln Arg lle His Asn Ser Glu Lys Ser Cys Asp Ser His Leu Val Gln His Gly Lys 11e Asp Ser Asp Val Lys His Asp Cys Lys Glu Cys Gly Ser Thr Phe Asn Asn Val Tyr Gln Leu Thr Leu His Gln Lys Ile His Thr Gly Glu Lys Ser Cys Lys Cys Glu Lys Cys Gly Lys Val Phe Ser His Ser Tyr Gln Leu Thr Leu His Gln Arg Phe His Thr Gly Glu Lys Pro Tyr Glu Cys Gln Glu Cys Gly Lys Thr Phe Thr Leu Tyr Pro Gln Leu Asn Arg His Gln Lys lle His Thr Gly Lys Lys Pro Tyr Met Cys Lys Lys Cys Asp Lys Gly 

Phe	Phe	Ser	Arg	Leu	Glu	Leu	Thr	G1n	His	Lys	Arg	He	His	Thr	Gly
			260					265					270		
Lys	Lys	Ser	Tyr	Glu	Cys	Lys	Glu	Cys	Gly	Lys	Val	Phe	Gln	Leu	He
		275					280					285			
Phe	Tyr	Phe	Lys	Glu	His	Glu	Arg	lle	His	Thr	Gly	Lys	Lys	Pro	Tyr
	290					295					300				
Glu	Cys	Lys	Glu	Cys	Gly	Lys	Ala	Phe	Ser	Val	Cys	Gly	Gln	Leu	Thr
305					310					315					320
Arg	His	Gln	Lys	He	His	Thr	Gly	Val	Lys	Pro	Tyr	Glu	Cys	Lys	Glu
				325					330					335	
Cys	Gly	Lys	Thr	Phe	Arg	Leu	Ser	Phe	Tyr	Leu	Thr	Glu	His	Arg	Arg
			340					345					350		
Thr	His	Ala	Gly	Lys	Lys	Pro	Tyr	Glu	Cys	Lys	Glu	Cys	G1 y	Lys	Ser
		355					360					365			
Phe	Asn	Val	Arg	Gly	Gln	Leu	Asn	Arg	His	Lys	Thr	Ile	His	Thr	Gly
	370					375					380				
lle	Lys	Pro	Phe	Ala	Cys	Lys	Val	Cys	Glu	Lys	Ala	Phe	Ser	Tyr	Ser
385					390					395					400
Gly	Asp	Leu	Arg	Val	His	Ser	Arg	He	His	Thr	Gly	Glu	Lys	Pro	Tyr
				405					410					415	
Glu	Cys	Lys	Glu	Cys	Gly	Lys	Ala	Phe	Met	Leu	Arg	Ser	Val	Leu	Thr
			420					425					430		
Glu	His	Gln	Arg	Leu	His	Thr	Gly	Va]	Lys	Pro	Tyr	Glu	Cys	Lys	Glu
		435					440					445			
Cys	Gly	Lys	Thr	Phe	Arg	Val	Arg	Ser	Gln	Πle	Ser	Leu	His	Lys	Lys
	450					455					460				
lle	His	Thr	Asp	Val	Lys	Pro	Tyr	Lys	Cys	Val	Arg	Cys	Gly	Lys	Thr
465					470					475					480
Phe	Arg	Phe	Gly	Phe	Tyr	Leu	Thr	G1u	His	Gln	Arg	lle	His	Thr	Gly
				485					490					495	
G]u	Lys	Pro	Tyr	Lys	Cys	Lys	Glu	Cys	Gly	Lys	Ala	Phe	lle	Arg	Arg
			500					505					510		
Gly	Asn	Leu	Lys	Glu	His	Leu	Lys	11e	His	Ser	Gly	Leu	Lys	Pro	Tyr
		515					520					525			
Лsp	Cys	Lys	Glu	Cys	G] y	Lys	Ser	Phe	Ser	Arg	Arg	Gly	Gln	Phe	Thr

530 535 540 Glu His Gln Lys Ile His Thr Gly Val Lys Pro Tyr Lys Cys Lys Glu 550 555 Cys Gly Lys Ala Phe Ser Arg Ser Val Asp Leu Arg Ile His Gln Arg 565 570 lle His Thr Gly Glu Lys Pro Tyr Glu Cys Lys Gln Cys Gly Lys Ala 585 Phe Arg Leu Asn Ser His Leu Thr Glu His Gln Arg Ile His Thr Gly 595 600 605 Glu Lys Pro Tyr Glu Cys Lys Val Cys Arg Lys Ala Phe Arg Gln Tyr 615 620 Ser His Leu Tyr Gln His Gln Lys Thr His Asn Val Ile 630 635

<210> 4739

<211> 170

<212> PRT

<213> Homo sapiens

<400> 4739

 Met
 Arg
 Ala
 Ala
 Val
 Pro
 His
 Gln
 Gly
 Ile
 Lys
 Phe
 Phe
 Lys
 Thr
 Leu

 1
 5
 5
 10
 10
 10
 15
 15

 Val
 Pro
 Tyr
 Asp
 Glu
 Gly
 Ala
 Pro
 Ala
 Phe
 Glu
 Gly
 Arg
 Ala
 Pro
 Ala

 Phe
 Ser
 His
 Ala
 Ser
 Leu
 His
 Pro
 Arg
 Tyr
 Asp
 Leu
 Met
 Tyr
 Gln
 Cys

 Trp
 Ser
 Ala
 Asp
 Pro
 Lys
 Gln
 Arg
 Pro
 Ser
 Phe
 Thr
 Cys
 Leu
 Arg
 Met

 50
 55
 55
 60
 60
 45
 Ala
 Arg
 Phe

Glu Leu Glu Asn 11e Leu Gly Gln Leu Ser Val Leu Ser Ala Ser Gln

65 70 75 80

Asp Pro Leu Tyr Ile Asn Ile Glu Arg Ala Glu Glu Pro Thr Ala Gly 85 90 95

Gly Ser Leu Glu Leu Pro Gly Arg Asp Gln Pro Tyr Ser Gly Ala Gly
100 105 110

Asp Gly Ser Gly Met Gly Ala Val Gly Gly Thr Pro Ser Asp Cys Arg

Tyr 11e Leu Thr Pro Gly Gly Leu Ala Glu Gln Pro Gly Gln Ala Glu His Gln Pro Glu Ser Pro Leu Asn Glu Thr Gln Arg Leu Leu Leu Gln Gln Gly Leu Leu Pro His Ser Ser Cys <210> 4740 <211> 492 <212> PRT <213> Homo sapiens <400> 4740 Met Ala Ser Pro Ser Gly Lys Gly Ala Arg Ala Leu Glu Ala Pro Gly Cys Gly Pro Arg Pro Leu Ala Arg Asp Leu Val Asp Ser Val Asp Asp Ala Glu Gly Leu Tyr Val Ala Val Glu Arg Cys Pro Leu Cys Asn Thr Thr Arg Arg Arg Leu Thr Cys Ala Lys Cys Val Gln Ser Gly Asp Phe Val Tyr Phe Asp Gly Arg Asp Arg Glu Arg Phe 11e Asp Lys Lys Glu Arg Leu Ser Arg Leu Lys Ser Lys Gln Glu Glu Phe Gln Lys Glu Val Leu Lys Ala Met Glu Gly Lys Trp Ile Thr Asp Gln Leu Arg Trp Lys lle Met Ser Cys Lys Met Arg lle Glu Gln Leu Lys Gln Thr lle Cys Lys Gly Asn Glu Glu Met Glu Lys Asn Ser Glu Gly Leu Leu Lys Thr Lys Glu Lys Asn Gln Lys Leu Tyr Ser Arg Ala Gln Arg His Gln Glu 

Lys Lys Glu Lys Ile Gln Arg His Asn Arg Lys Leu Gly Asp Leu Val

				165					170					175	
Glu	Lys	Lys	Thr	He	Asp	Leu	Arg	Ser	His	Tyr	Glu	Arg	Leu	Ala	Asn
			180					185					190		
Leu	Arg	Arg	Ser	His	lle	Leu	Glu	Leu	Thr	Ser	Val	lle	Phe	Pro	He
		195					200					205			
Glu	Glu	Val	Lys	Thr	Gly	Val	Arg	Asp	Pro	Ala	Asp	Val	Ser	Ser	Glu
	210					215					220				
Ser	Asp	Ser	Ala	Met	Thr	Ser	Ser	Thr	Val	Ser	Lys	Leu	Ala	Glu	Ala
225					230					235					240
Arg	Arg	Thr	Thr	Tyr	Leu	Ser	Gly	Arg	Trp	Val	Cys	Asp	Asp	His	Asn
				245					250					255	
Gly	Asp	Thr	Ser	lle	Ser	Ile	Thr	Gly	Pro	Trp	lle	Ser	Leu	Pro	Asn
			260					265					270		
Asn	Gly	Asp	Tyr	Ser	Ala	Tyr	Tyr	Ser	Trp	Val	Glu	Glu	Lys	Lys	Thr
		275					280					285			
Thr	Gln	Gly	Pro	Asp	Met	Glu	Gln	Ser	Asn	Pro	Ala	Tyr	Thr	Пе	Ser
	290					295					300				
A 1 o	Δla	يرم ا	Cve	Tyr	Ala	Thr	Gln	Leu	Val	Asn	He	Leu	Ser	His	He
Ala	Mid	Leu	Cys	1 9 1	MIG	1 11.1	<b>V.1.1.</b>	1,00							
305	Mia	Leu	Cys	1 9 1	310		<b>V.1</b>	,,,,,	,	315			201		320
305					310					315				Cys	320
305					310					315					320
305 Leu	Asp	Val	Asn	Leu 325	310 Pro	Lys	Lys	Leu	Cys 330	315 Asn	Ser	Glu	Phe	Cys	320 Gly
305 Leu	Asp	Val	Asn	Leu 325	310 Pro	Lys	Lys	Leu	Cys 330	315 Asn	Ser	Glu	Phe	Cys 335	320 Gly
305 Leu Glu	Asp Asn	Val Leu	Asn Ser 340	Leu 325 Lys	310 Pro Gln	Lys Lys	Lys Phe	Leu Thr 345	Cys 330 Arg	315 Asn Ala	Ser Val	Glu Lys	Phe Lys 350	Cys 335	320 Gly Asn
305 Leu Glu	Asp Asn	Val Leu	Asn Ser 340	Leu 325 Lys	310 Pro Gln	Lys Lys	Lys Phe	Leu Thr 345	Cys 330 Arg	315 Asn Ala	Ser Val	Glu Lys	Phe Lys 350	Cys 335 Leu	320 Gly Asn
305 Leu Glu Ala	Asp Asn Asn	Val Leu 11e 355	Asn Ser 340 Leu	Leu 325 Lys Tyr	310 Pro Gln Leu	Lys Lys Cys	Lys Phe Phe 360	Leu Thr 345 Ser	Cys 330 Arg Gln	315 Asn Ala His	Ser Val	Glu Lys Asn 365	Phe Lys 350 Leu	Cys 335 Leu	320 Gly Asn Gln
305 Leu Glu Ala	Asp Asn Asn	Val Leu 11e 355 Pro	Asn Ser 340 Leu	Leu 325 Lys Tyr	310 Pro Gln Leu	Lys Lys Cys	Lys Phe Phe 360 Arg	Leu Thr 345 Ser	Cys 330 Arg Gln	315 Asn Ala His	Ser Val	Glu Lys Asn 365 Leu	Phe Lys 350 Leu	Cys 335 Leu Asp	320 Gly Asn Gln
305 Leu Glu Ala Leu	Asp Asn Asn Gln 370	Val Leu 11e 355 Pro	Asn Ser 340 Leu Leu	Leu 325 Lys Tyr His	310 Pro Gln Leu Thr	Lys Lys Cys Leu 375	Lys Phe Phe 360 Arg	Leu Thr 345 Ser Asn	Cys 330 Arg Gln Leu	315 Asn Ala His	Ser Val Val Tyr 380	Glu Lys Asn 365 Leu	Phe Lys 350 Leu Val	Cys 335 Leu Asp	320 Gly Asn Gln Pro
305 Leu Glu Ala Leu	Asp Asn Asn Gln 370	Val Leu 11e 355 Pro	Asn Ser 340 Leu Leu	Leu 325 Lys Tyr His	310 Pro Gln Leu Thr	Lys Lys Cys Leu 375	Lys Phe Phe 360 Arg	Leu Thr 345 Ser Asn	Cys 330 Arg Gln Leu	315 Asn Ala His	Ser Val Val Tyr 380	Glu Lys Asn 365 Leu	Phe Lys 350 Leu Val	Cys 335 Leu Asp	320 Gly Asn Gln Pro
305 Leu Glu Ala Leu Ser 385	Asp Asn Asn Gln 370 Ser	Val Leu 11e 355 Pro Glu	Asn Ser 340 Leu Leu	Leu 325 Lys Tyr His	310 Pro Gln Leu Thr Gly 390	Lys Lys Cys Leu 375 Arg	Lys Phe Phe 360 Arg	Leu Thr 345 Ser Asn	Cys 330 Arg Gln Leu Pro	315 Asn Ala His Met Phe 395	Ser Val Val Tyr 380 Glu	Glu Lys Asn 365 Leu Val	Phe Lys 350 Leu Val	Cys 335 Leu Asp	320 Gly Asn Gln Pro Asp 400
305 Leu Glu Ala Leu Ser 385	Asp Asn Asn Gln 370 Ser	Val Leu 11e 355 Pro Glu	Asn Ser 340 Leu Leu	Leu 325 Lys Tyr His	310 Pro Gln Leu Thr Gly 390	Lys Lys Cys Leu 375 Arg	Lys Phe Phe 360 Arg	Leu Thr 345 Ser Asn	Cys 330 Arg Gln Leu Pro	315 Asn Ala His Met Phe 395	Ser Val Val Tyr 380 Glu	Glu Lys Asn 365 Leu Val	Phe Lys 350 Leu Val	Cys 335 Leu Asp Ser	320 Gly Asn Gln Pro Asp 400
305 Leu Glu Ala Leu Ser 385 Leu	Asp Asn Asn Gln 370 Ser	Val Leu Ile 355 Pro Glu Glu	Asn Ser 340 Leu His	Leu 325 Lys Tyr His Leu Met 405	310 Pro Gln Leu Thr Gly 390 Glu	Lys Lys Cys Leu 375 Arg	Lys Phe Phe 360 Arg Ser	Leu Thr 345 Ser Asn Gly	Cys 330 Arg Gln Leu Pro Pro 410	315 Asn Ala His Met Phe 395 Gly	Ser Val Val Tyr 380 Glu Val	Glu Lys Asn 365 Leu Val	Phe Lys 350 Leu Val Arg	Cys 335 Leu Asp Ser Ala	320 Gly Asn Gln Pro Asp 400 Ser
305 Leu Glu Ala Leu Ser 385 Leu	Asn Asn Gln 370 Ser	Val Leu Ile 355 Pro Glu Glu	Asn Ser 340 Leu His	Leu 325 Lys Tyr His Leu Met 405	310 Pro Gln Leu Thr Gly 390 Glu	Lys Lys Cys Leu 375 Arg	Lys Phe Phe 360 Arg Ser	Leu Thr 345 Ser Asn Gly	Cys 330 Arg Gln Leu Pro Pro 410	315 Asn Ala His Met Phe 395 Gly	Ser Val Val Tyr 380 Glu Val	Glu Lys Asn 365 Leu Val	Phe Lys 350 Leu Val Arg	Cys 335 Leu Asp Ser Ala Glu 415	320 Gly Asn Gln Pro Asp 400 Ser
305 Leu Glu Ala Leu Ser 385 Leu Asp	Asp Asn Asn Gln 370 Ser Glu	Val Leu Ile 355 Pro Glu Glu Ser	Asn Ser 340 Leu His Ser Gly 420	Leu 325 Lys Tyr His Leu Met 405 Asp	310 Pro Gln Leu Thr Gly 390 Glu Glu	Lys Cys Leu 375 Arg Phe	Lys Phe Phe 360 Arg Ser Val	Leu Thr 345 Ser Asn Gly Asp Ser 425	Cys 330 Arg Gln Leu Pro Pro 410 Asp	315 Asn Ala His Met Phe 395 Gly Glu	Ser Val Val Tyr 380 Glu Val	Glu Lys Asn 365 Leu Val	Phe Lys 350 Leu Val Arg Gly Asp 430	Cys 335 Leu Asp Ser Ala Glu 415	320 Gly Asn Gln Pro Asp 400 Ser Gly
305 Leu Glu Ala Leu Ser 385 Leu Asp	Asp Asn Asn Gln 370 Ser Glu	Val Leu Ile 355 Pro Glu Glu Ser	Asn Ser 340 Leu His Ser Gly 420	Leu 325 Lys Tyr His Leu Met 405 Asp	310 Pro Gln Leu Thr Gly 390 Glu Glu	Lys Cys Leu 375 Arg Phe	Lys Phe Phe 360 Arg Ser Val	Leu Thr 345 Ser Asn Gly Asp Ser 425	Cys 330 Arg Gln Leu Pro Pro 410 Asp	315 Asn Ala His Met Phe 395 Gly Glu	Ser Val Val Tyr 380 Glu Val	Glu Lys Asn 365 Leu Val	Phe Lys 350 Leu Val Arg Gly Asp 430	Cys 335 Leu Asp Ser Ala Glu 415 Leu	320 Gly Asn Gln Pro Asp 400 Ser Gly

450 455 460

Ile Ala Ser Ser Ser Ala Gly Gly Met Ile Ser Ser Ala Ala Ala Ser
465 470 480

Val Thr Ser Trp Phe Lys Ala Tyr Thr Gly His Arg
485 490

<210> 4741 <211> 415 <212> PRT

<213> Homo sapiens

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Ile Thr Asp Glu Met Ala Glu Gln Leu Met Thr Leu Ala Tyr Asp Asn 100 105 110

90

85

Gly lle Asn Leu Phe Asp Thr Ala Glu Val Tyr Ala Ala Gly Lys Ala 115 120 125

Glu Val Val Leu Gly Asn lle lle Lys Lys Lys Gly Trp Arg Arg Ser 130 135 140

Ser Leu Val IIe Thr Thr Lys IIe Phe Trp Gly Gly Lys Ala Glu Thr 145 150 155 160

Glu Arg Gly Leu Ser Arg Lys His IIe IIe Glu Gly Leu Lys Ala Ser 165 170 175

Leu Glu Arg Leu Gln Leu Glu Tyr Val Asp Val Val Phe Ala Asn Arg

			180					185					190		
Pro	Asp	Pro	Asn	Thr	Pro	Met	Glu	Gly	Asp	Pro	Phe	Ser	Ser	Ser	Lys
		195					200					205			
Ser	Arg	Thr	Phe	He	He	Glu	Glu	Thr	Val	Arg	Ala	Met	Thr	His	Val
	210					215					220				
He	Asn	Gln	Gly	Met	Ala	Met	Tyr	Trp	Gly	Thr	Ser	Arg	Trp	Ser	Ser
225					230					235					240
Met	Glu	Ile	Met	Glu	Ala	Tyr	Ser	Val	Ala	Arg	Gln	Phe	Asn	Leu	Thr
				245					250					255	
Pro	Pro	lle	Cys	Glu	Gln	Ala	Glu	Tyr	His	Met	Phe	Gln	Arg	Glu	Lys
			260					265					270		
Val	Glu	Val	Gln	Leu	Pro	Glu	Leu	Phe	His	Lys	lle	Gly	Va1	Gly	Ala
		275					280					285			
Met	Thr	Trp	Ser	Pro	Leu	Ala	Cys	Gly	He	Va]	Ser	Gly	Lys	Tyr	Asp
	290					295					300				
Ser	Gly	lle	Pro	Pro	Tyr	Ser	Arg	Ala	Ser	Leu	Lys	Gly	Tyr	Gln	Trp
305					310					315					320
Leu	Lys	Asp	Lys	Ile	Leu	Ser	Glu	Glu	G1 y	Arg	Arg	Gln	Gln	Ala	Lys
				325					330					335	
Leu	Lys	Glu	Leu	Gln	Ala	He	Ala	Glu	Arg	Leu	Gly	Cys	Thr	Leu	Pro
			340					345					350		
Gln	Leu	Ala	lle	Ala	Trp	Cys	Leu	Arg	Asn	Glu	Gly	Val	Ser	Ser	Val
		355					360					365			
Leu	Leu	Gly	Ala	Ser	Asn	Ala	Asp	Gln	Leu	Met	Glu	Asn	lle	Gly	Ala
	370					375					380				
He	Gln	Val	Leu	Pro	Lys	Leu	Ser	Ser	Ser	lle	lle	His	Glu	lle	Asp
385					390					395					400
Ser	11e	Leu	Gly	Asn	Lys	Pro	Tyr	Ser	Lys	Lys	Asp	Tyr	Arg	Ser	
				405					410					415	

<210> 4742

<211> 127

<212> PRT

<213> Homo sapiens

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<210> 4743

<211> 540

<212> PRT

<213> Homo sapiens

<400> 4743

Met Pro Asn Lys Asn Lys Lys Glu Lys Glu Ser Pro Lys Ala Gly Lys

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Ser Gly Lys Ser Ser Lys Glu Gly Gln Asp Thr Val Glu Ser Glu Gln 20 25 30

lle Ser Val Arg Lys Asn Ser Leu Val Ala Val Pro Ser Thr Val Ser

40 45

Ala Lys Ile Lys Val Pro Val Ser Gln Pro lle Val Lys Lys Asp Lys
50 55 60

Arg Gln Asn Ser Ser Arg Phe Ser Ala Ser Asn Asn Arg Glu Leu Gln
65 70 75 80

Lys	Leu	Pro	Ser	Leu	Lys	Asp	Val	Pro	Pro	Ala	Asp	Gln	Glu	Lys	Leu
				85					90					95	
Phe	Пe	G1n	Lys	Leu	Arg	Gln	Cys	Cys	Val	Leu	Phe	Asp	Phe	Val	Ser
			100					105					110		
Asp	Pro	Leu	Ser	Asp	Leu	Lys	Trp	Lys	Glu	Val	Lys	۸rg	Ala	Ala	Leu
		115					120					125			
Ser	Glu	Met	Val	Glu	Tyr	He	Thr	His	Asn	Arg	Asn	Val	He	Thr	Glu
	130					135					140				
Pro	Ile	Tyr	Pro	Glu	Val	Val	His	Met	Phe	Ala	Val	Asn	Met	Phe	Arg
145					150					155					160
Thr	Leu	Pro	Pro	Ser	Ser	Asn	Pro	Thr	Gly	Ala	Glu	Phe	Asp	Pro	Glu
				165					170					175	
Glu	Asp	Glu	Pro	Thr	Leu	Glu	Ala	Ala	Trp	Pro	His	Leu	Gln	Leu	Val
			180					185					190		
Tyr	Glu	Phe	Phe	Leu	Arg	Phe	Leu	Glu	Ser	Pro	Asp	Phe	Gln	Pro	Asn
		195					200					205			
lle	Ala	Lys	Lys	Tyr	lle	Asp	Gln	Lys	Phe	Val	Leu	Gln	Leu	Leu	Glu
	210					215					220				
Leu	Phe	Asp	Ser	Glu	Asp	Pro	Arg	Glu	Arg	Asp	Phe	Leu	Lys	Thr	Thr
225					230					235					240
Leu	His	Arg	Ile	Tyr	Gly	Lys	Phe	Leu	Gly	Leu	Arg	Ala	Tyr	Ile	Arg
				245					250					255	
Lys	Gln	lle	Asn	Asn	lle	Phe	Tyr	Arg	Phe	He	Tyr	Glu	Thr	Glu	His
			260					265					270		
His	Asn	Gly	He	Ala	Glu	Leu	Leu	Glu	lle	Leu	Gly	Ser	Hle	He	Asn
		275					280					285			
Gly	Phe	Ala	Leu	Pro	Leu	Lys	Glu	Glu	His	Lys	lle	Phe	Leu	Leu	Lys
	290					295					300				
Val	Leu	Leu	Pro	Leu		Lys	Val	Lys	Ser	Leu	Ser	Val	Tyr	His	Pro
305					310					315					320
Gln	Leu	Ala	Tyr	Cys	Val	Val	Gln	Phe		Glu	Lys	Asp	Ser		Leu
				325					330					335	
Thr	G]u	Pro		Val	Met	Ala	Leu		Lys	Tyr	Trp	Pro	Lys	Thr	His
			340					345					350		
Ser	Pro		Glu	Val	Met	Phe			Glu	Leu	Glu		He	Leu	Asp
		355					360					365			

Val Ile Glu Pro Ser Glu Phe Val Lys Ile Met Glu Pro Leu Phe Arg Gln Leu Ala Lys Cys Val Ser Ser Pro His Phe Gln Val Ala Glu Arg Ala Leu Tyr Tyr Trp Asn Asn Glu Tyr Ile Met Ser Leu Ile Ser Asp Asn Ala Ala Lys Ile Leu Pro Ile Met Phe Pro Ser Leu Tyr Arg Asn Ser Lys Thr His Trp Asn Lys Thr Ile His Gly Leu Ile Tyr Asn Ala Leu Lys Leu Phe Met Glu Met Asn Gln Lys Leu Phe Asp Asp Cys Thr Gln Gln Phe Lys Ala Glu Lys Leu Lys Glu Lys Leu Lys Met Lys Glu Arg Glu Glu Ala Trp Val Lys Ile Glu Asn Leu Ala Lys Ala Asn Pro Gln Ala Gln Lys Asp Pro Lys Lys Asp Arg Pro Leu Ala Arg Arg Lys Ser Glu Leu Pro Gln Asp Pro His Thr Lys Lys Ala Leu Glu Ala His Cys Arg Ala Asp Glu Leu Ala Ser Gln Asp Gly Arg 

<210> 4744

<211> 361

<212> PRT

<213> Homo sapiens

<400> 4744

 Met His Cys
 Ser Cys
 Leu Ala Glu Gly Ile Pro Ala Asn Pro Gly Asn

 1
 5
 10
 15

 Trp Ile Ser Gly Leu Ala Phe Pro Asp Trp Ala Tyr Lys Ala Glu Ser
 20
 25

 Ser Pro Gly Ser Arg Gln Ile Gln Leu Trp His Phe Ile Leu Glu Leu
 35
 40

Leu	Gln 50	Lys	Glu	Glu	Phe	Arg 55	His	Val	Ile	Ala	Trp 60	Gln	Gln	Gly	Glu
Tur		C1n	Pho	Val	Ha		Acn	Pro	Acn	Glu		Ala	Ara	ررم ا	Trn
65	Gly	Olu	THE	vai	70	Lys	пэр	110	пэр	75	741	Mid	m 8	Lcu	80
	Δησ	Δrσ	lve	Cve		Pro	Gln	Met	Asn		Asn	lvs	Len	Ser	
Oly	лıg	лгg	Lys	85	Lys	110	OIII	MC t	90	1 9 1	пэр	12 ) 3	Lea	95	шБ
Δla	ا ما	Ara	Tyr		Tyr	Aen	lve	Arg		Len	His	Lvs	Thr		Glv
Mia	LCu	M S	100	1 9 1	1 9 1	71511	LyS	105	110	Leu	1115	Lys	110	Lyo	01)
Lvs	Arg	Phe		Tvr	Lvs	Phe	Asn	Phe	Ser	Lys	Leu	lle		Val	Asn
_,_	0	115					120			,		125			
Tyr	Pro		Trp	Glu	Val	Arg	Ala	Pro	Pro	Ser	Pro	His	Leu	Leu	Leu
	130					135					140				
Gly	Ala	Pro	Ala	Leu	Cys	Arg	Pro	Ala	Leu	Val	Pro	Val	Gly	Val	Gln
145					150					155					160
Ser	Glu	Leu	Leu	His	Ser	Met	Leu	Phe	Ala	His	Gln	Ala	Met	Val	G1u
				165					170					175	
Gln	Leu	Thr	G1 y	Gln	Gln	Thr	Pro	Arg	Gly	Pro	Pro	Glu	Thr	Ser	Gly
			180					185					190		
Asp	Lys	Lys	Gly	Ser	Ser	Ser	Ser	Val	Tyr	Arg	Leu	Gly	Ser	Ala	Pro
		195					200					205			
Gly	Pro	Cys	Arg	Leu	Gly	Leu	Cys	Cys	His	Leu	Gly	Ser	Val	Gln	Gly
	210					215					220				
Glu	Leu	Pro	Gly	Val	Ala	Ser	Phe	Thr	Pro	Pro	Leu	Pro	Pro	Pro	Leu
225					230					235					240
Pro	Ser	Asn	Trp	Thr	Cys	Leu	Ser	Gly	Pro	Phe	Leu	Pro	Pro	Leu	Pro
				245					250					255	
Ser	Glu	Gln	Gln	Leu	Pro	Gly	Ala	Phe	Lys	Pro	Asp	Пе		Leu	Pro
			260					265					270		
Gly	Pro		Ser	Leu	Pro	Gly		Trp	His	Phe	Pro		Leu	Pro	Leu
		275					280					285		_	
Leu		Gly	Leu	Gly	Gln		Ala	Gly	Glu	Arg		Trp	Leu	Leu	Ser
	290		0.1	0.1		295	., .		Б.		300			0.1	
	Arg	Pro	GIu	GTy		Glu	Val	Lys	Pro		Pro	Met	Met	Glu	
305	Cl	C1	1	Λ	310	Δ	C1.	V . 3	ובו	315	D	C1.	T)	Δ	320
Lys	оту	GIY	Leu		rro	лгg	GIU	Val	330	Cys	110	oru	1111	335	Arg
				325					აას					ააა	

Leu Lys Thr Gly Glu Glu Ser Leu Thr Ser Pro Asn Leu Glu Asn Leu 340 345 350

Lys Ala Val Trp Pro Leu Asp Pro Pro 355 360

<210> 4745

<211> 169

<212> PRT

<213> Homo sapiens

<400> 4745

Met Met Lys Thr Leu Asn Ile Leu Asp Met Glu Gly Met Phe Leu Asn
1 5 10 15

Thr Ile Lys Ala lle Tyr Asp Lys Leu lle Ala Asn Ile Val Leu Ser 20 25 30

Gly Lys Lys Leu Lys Ala Phe Pro Ile Arg Pro Arg Thr Arg Gln Gly
35 40 45

Cys Pro Leu Leu Pro Leu Leu Phe Asn Ile Val Pro Glu Val Leu Ala 50 55 60

Arg Ala Ile Arg Gln Glu Lys Glu Ile Lys Asp Ile Gln Ile Gly Lys
65 70 75 80

Ser Glu Met Lys Leu Ser Leu Phe Ala Asp Asn Met Ile Leu His Ile 85 90 95

Glu Asn Leu Lys Asp Cys Thr Lys Thr Pro Phe Glu Leu Asp Lys Ser 100 105 110

Ser Lys Val Ala Gly Tyr Lys 11e Asn Leu Gln Lys Ser Val His Phe 115 120 125

Tyr Thr Leu Thr Val Asn Phe Leu Lys Lys Lys Leu Arg Lys Gln Ser 130 135 140

His Leu Gln Tyr His Leu Leu Leu Ser Lys IIe Leu Arg Arg Lys Phe 145 150 155 160

Asn Gln Gly Ser Glu Arg Ser Ile His

165

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<210> 4746
<211> 182
<212> PRT
<213> Homo sapiens
<400> 4746
Met Trp Ile Leu Arg Val Leu Leu Gly Arg His Leu Pro Gln Trp Asn
                                     10
Ala Ser Ser Glu Trp Cys Met Ala Gly Pro His Gly Gly Ser Thr Gln
             20
                                 25
                                                      30
Gly Leu Asn Thr Gly Lys Glu Leu Ala Arg Gly Val Arg Thr Ser Gly
                             40
lle Trp Glu Ser Ala Ala Trp Asp His Lys Glu Ser Lys Ser Ser Ala
                         55
Thr Cys Trp Ser Leu Arg Pro Glu Gly Arg Pro Asp Phe Arg Asp His
 65
                     70
                                          75
Pro Trp Met Ser Leu Asp Trp Glu Leu Tyr Val Asp Gly Ser Asn Phe
                 85
                                     90
Val Asn Ser Gln Gly Glu Arg Cys Val Gly Tyr Ala Val Val Thr Leu
                                                     110
            100
                                 105
Asp Ala Val lle Glu Ala Lys Ser Leu Pro Gln Gly Thr Ser Ala Gln
                            120
                                                 125
Lys Ala Glu Leu Ile Ala Leu Ile Arg Ala Ser Glu Leu Ser Glu Gly
                        135
Lys Thr Val Asn Ile Tyr Thr Asp Ser Gln Tyr Ala Phe Leu Thr Leu
                                                             160
145
                    150
                                         155
Gln Val His Gly Ala Leu Tyr Lys Glu Lys Gly Leu Leu Asn Ser Gly
                165
                                     170
                                                         175
Gly Lys Asp Val Lys Tyr
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<210> 4747

<211> 957

<212> PRT

<213> Homo sapiens

180

<400	)> 47	747													
Met	Thr	Ser	Phe	Leu	Lys	Pro	Glu	Asn	Ala	Leu	Lys	Arg	Ala	Glu	G1u
1				5					10					15	
Leu	He	Asn	Val	Gly	Gln	Lys	Gln	Asp	Ala	Leu	Gln	Thr	Leu	His	Asp
			20					25					30		
Leu	He	Thr	Ser	Lys	Arg	Tyr	Arg	Ala	Trp	Gln	Lys	Thr	Leu	Glu	Arg
		35					40					45			
He	Met	Phe	Lys	Tyr	Val	Glu	Leu	Cys	Val	Asp	Met	Arg	Lys	Gly	Arg
	50					55					60				
Phe	Ala	Lys	Asp	Gly	Leu	lle	Gln	Tyr	Arg	Ile	He	Cys	Gln	Gln	Val
65					70					75					80
Asn	Val	Ser	Ser	Leu	Glu	Glu	Val	He	Lys	His	Phe	Met	Gln	Leu	Ser
				85					90					95	
Thr	Glu	Lys	Ala	Glu	Gln	Ala	Arg	Ser	Gln	Ala	Gln	Ala	Leu	Glu	Glu
			100					105					110		
Ala	Leu	Asp	Val	Asp	Asp	Leu		Ala	Asp	Lys	Arg		Glu	Asp	Leu
		115					120	_				125			
Met		Ser	Tyr	Val	Ser		Glu	Lys	Gly	Lys		Arg	Ser	Asp	Arg
	130		<b></b>	••	<b></b>	135		D)		Tr.	140	T)	т		TI.
	Thr	Val	Thr	Pro		Phe	Lys	Phe	Leu		Glu	Ihr	Tyr	Arg	
145		6.1			150			C		155	C1	A.T.	1	Т	160
Val	Leu	61u	116		Arg	Asn	Asn	Ser		Leu	GIU	Ala	Leu		ATA
	TI		112.	165	A 1	DL.	C1	DL.	170	1	C1	Т	Luc	175	Thm
Met	ınr	Ala		Arg	ATA	rne	GIN	185	Cys	Lys	GIN	Lyr	Lys 190	AIg	1111
TL.,	C1	Lau	180	Ara	Lou	Cvc	Clu		Ho	Ara	Acn	Hic	Leu	Δla	Acn
1111	Giu	195		nı g	Leu	Cys		116		m g	поп	205		ma	71311
Lou	Aen			Ara	Asn	Gln				Pro	Asn		Ser	Ala	Pro
Leu	210	Lys	131	ms	пор	215	711 8	пор	8	110	220	20.0	501		,,,
Glu		Len	Gln	Leu	Tvr		Asp	Thr	Arg	Phe		Gln	Leu	Lvs	He
225		., .			230				Ü	235				•	240
	Thr	Glu	Leu	Gly	Leu	Trp	Gln	Glu	Ala	Phe	Arg	Ser	Val	Glu	Asp
				245		•			250		~*			255	
He	His	Gly	Leu		Cys	Leu	Va]	Lys	Lys	Thr	Pro	Lys	Pro	Ser	Leu
			260					265					270		

Met	Val	Val 275	Tyr	Tyr	Val	Lys	Leu 280	Thr	Glu	He	Phe	Trp 285	Ile	Ser	Ser
Ser		Leu	Tyr	His	Ala		Ala	Trp	Phe	Lys		Phe	Leu	Leu	Gln
,	290	DI				295	C	C1			300	C1		71	. 1
-	Ser	Pne	Asn	Lys		Leu	ser	GIN	Lys		Leu	GIN	Leu	Ile	
305	C	V 1	17 1		310	4.1		C	V 1	315	D	11.	<b>A</b>	۸.	320
Ser	ser	vai	vai	325	Ala	Ala	Leu	ser	330	Pro	Pro	ms	ASP	Arg 335	ınr
His	Gly	Ala	Ser	His	Leu	Glu	Leu	Glu	His	Glu	Lys	Glu	Arg	Asn	Leu
			340					345					350		
Arg	Met	Ala	Asn	Leu	Ile	Gly	Phe	Asn	Leu	Glu	Thr	Lys	Pro	Glu	Ser
		355					360					365			
Arg	Glu	Met	Leu	Ser	Arg	Ala	Ser	Leu	Leu	Ala	Glu	Leu	Ala	Ser	Lys
	370					375					380				
Gly	Val	Met	Ser	Cys	Val	Thr	Gln	Glu	Val	Lys	Asp	He	Tyr	His	Leu
385					390					395					400
Leu	Glu	His	Glu	Phe	Tyr	Pro	Ser	Asp	Leu	Ala	Leu	Lys	Ala	Leu	Pro
				405					410					415	
Leu	lle	Thr	Lys	Πle	Ser	Lys	Leu	Gly	G1 y	Lys	Leu	Ser	Thr	Ala	Ser
			420					425					430		
Ser	Val	Pro	Glu	Val	Gln	Leu	Ala	Gln	Tyr	Va]	Pro	Ala	Leu	Glu	Arg
		435					440					445			
Leu	Ala	Thr	Met	Arg	Leu	Leu	Gln	Gln	Val	Ser	Asn	Val	Tyr	Gln	Ser
	450					455					460				
Met	Lys	He	Glu	Thr	Leu	Ser	Gly	Met	He	Pro	Phe	Phe	Asp	Phe	Ala
465					470					475					480
Gln	Va]	G] u	Lys	lle	Ser	Val	Asp	Ala	Val	Lys	Gln	Lys	Phe	Val	Ser
				485					490					495	
Met	Lys	Val	Asp	His	Met	Lys	Asn	Ala	Val	lle	Phe	Ser	Lys	Lys	Ser
			500					505					510		
Leu	Glu	Ser	Asp	Gly	Leu	Arg	Asp	His	Leu	G1 y	Asn	Phe	Ala	Glu	Gln
		515					520					525			
Leu	Asn		Ala	Arg	Gln	Met	He	Tvr	Pro	Pro	Asp	Gly	Arg	Pro	Ser
	530	•		_		535					540	-	_		
Lys		Glv	Ala	Leu	Leu		Thr	Leu	Thr	Glu	Val	Val	Ala	Lys	Glu
545		•			550					555				•	560

His	Lys	Arg	Leu	Leu 565	Ala	Arg	Lys	Ser	11e 570	lle	Glu	Lys	Arg	Lys 575	Glu
Glu	Gln	Glu	Arg 580	Gln	Leu	Leu	Glu	Met 585	Glu	Arg	Glu	Glu	G1u 590	Ser	Lys
Arg	Leu	Arg 595		GIn	Lys	11e	Thr 600		Glu	Ala	Glu	Gln 605		Arg	Leu
Ala	Thr 610		Tyr	Glu	Gln	Arg 615		Asn	Gln	Arg	11e 620		Arg	Glu	Ile
Glu		Arg	Glu	Asn	Glu		Ala	Gln	Ala	Leu		Gln	Glu	Ala	Glu
625					630					635					640
Lys	Arg	Ile	Lys	Lys 645	Lys	Gly	Lys	Lys	Pro 650	Ile	Ile	Glu	Gly	Asp 655	Lys
Ile	Thr	Lys	G1n 660	Thr	Leu	Met	Glu	Leu 665	Thr	Leu	Thr	Glu	Gln 670	Leu	Arg
Glu	Arg	Gln	Glu	Met	Glu	Lys	Lys	Leu	Gln	Lys	Leu	Ala	Lys	Thr	Met
		675					680					685			
Asp	Tyr 690	Leu	Glu	Arg	Ala	Lys 695	Arg	Glu	Glu	Ala	Ala 700	Pro	Leu	lle	Glu
Ala	Ala	Tyr	Gln	G1n	Arg	Leu	Val	Glu	Glu	Arg	Leu	Leu	His	Glu	Arg
705					710					715					720
Glu	Gln	G1n	Gln	Glu 725	Val	Glu	Leu	Ser	Lys 730	Gln	Arg	His	Glu	Gly 735	Asp
Leu	Lys	Glu			Arg	Leu	Val			Met	Gly	Asn	Lys 750	Glu	Val
Tun	Cla	A10	740	Val	Val	Sor	Hic	745	Gln	Δla	Clu	Pho		Ara	Leu
1 9 1	OIII	755	лгg	vai	vai	561	760	шв	OIII	Mid	Olu	765	71311	шв	Leu
Arg	Arg 770	Glu	Arg	Glu	Glu	Arg 775		Ser	Arg	lle	Leu 780	Gln	Ser	Arg	Arg
Gln		Arg	Glu	lve	Met			Len	Lvs	Tvr		Leu	Lvs	Leu	Glu
785	O.I.G	шв	014	2,5	790	шь	123.5	Lea	12,0	795		,,,,,	E, o	200	800
	Glu	Arg	Gln	Gln	Lys	Leu	Arg	Glu	Ala	Glu	Glu	Ala	Arg	Lys	Arg
				805					810					815	
Glu	Asp	Ala	Glu	Arg	Lys	Lys	Lys	Glu	Glu	Glu	Glu	Arg	Leu	Arg	Lys
			820					825					830		
Leu	Glu	61u 835		Ala	Glu	Lys	G1n 840		Gln	Arg	Glu	Arg 845		Leu	Glu

Glu Lys Glu Lys Gln Arg Arg Glu Ala Leu Leu Gly Arg Ala Ala Ala 855 860 Glu Pro Ala Pro Pro Ala Arg Pro Leu Glu Ser Gly Ser Ala Ala Pro 880 875 870 865 Ala Ala Ala Ala Ala Ala Ala Ala Pro Thr Pro Gly Lys Tyr Val 890 885 Pro Lys Phe Arg Arg Glu Arg Thr Glu Ser Ala Gly Ala Ala Pro Pro 905 900 Pro Glu Thr Asp Arg Trp Asn Ser Ser Ser Arg Pro Asp Gly Asp Arg 920 925 915 Trp Arg Ser Asp Asp Arg Arg Thr Ala Phe Gly Ser Gly Gly Ser 935 Arg Ser Ser Ser Thr Trp Ser Ser Ser Arg Asn Ala Arg 955 945 950

<210> 4748

<211> 177

<212> PRT

<213> Homo sapiens

<400> 4748

 Met Glu Glu Asp Leu Pro Ser Lys Trp Lys Ala Lys Lys Lys Ala Gly

 1
 5
 10
 15

 Leu Ala Ile Leu Val Ser Asp Lys Pro Asp Phe Lys Pro Thr Lys Ile
 20
 25
 30

 Lys Arg Asp Lys Glu Gly His Tyr Ile Val Val Lys Gly Ser Ile His
 35
 40
 45

Gln Glu Asp Leu Thr Ile Leu Asn Ile Tyr Ala Pro Asn Thr Gly Ala 50 55 60

Pro Arg Ser 11e Lys Gln Val Leu Arg Asp Leu Arg Arg Asp Leu Asp .65 70 75 80

Ser His Thr 11e 11e Met Gly Asp Phe Asn Thr Pro Leu Ser 11e Leu 85 90 95

Asp Arg Ser Thr Arg Gln Lys Val 11e Lys Asp 11e Gln Asp Leu Asn 100 105 110

```
Ser Ala Leu His Gln Ala Asp Leu Ile Asp Ile Tyr Arg Thr Leu His
                            120
                                                 125
His Lys Ser Arg Gln Tyr Ala Phe Phe Ser Ala Pro His Cys Thr Tyr
                                             140
    130
                        135
Ser Lys Ile Gly His Ile Ile Gly Ser Lys Thr Leu Leu Arg Lys Cys
                                         155
                    150
Lys Arg Thr Glu Ile Thr Ala Asn Cys Leu Leu Asp Thr Val Gln Ser
                                     170
                                                         175
                165
Asn
<210> 4749
<211> 113
<212> PRT
<213> Homo sapiens
<400> 4749
Met Tyr Cys Leu Lys Gln Phe Leu Pro Leu Cys Val Thr Cys Gly Leu
 1
                  5
                                      10
                                                          15
```

Ser Ile Val Pro Val Val Ile Ala Leu Ile Tyr Lys Cys Pro Leu Phe Leu Ser Cys Asn Ile Phe Leu Val Thr Cys Val Thr Pro Ser Val Thr Val His Leu Cys Ser Leu Tyr Lys His Asn Ser Ser Ser Ser Leu Cys Pro Thr Pro Ser Leu Pro Phe Gly Phe Ala Cys Asn Val Phe Ile Cys Val Arg Gln Ser Pro Thr Val Phe Leu Pro Cys Gly Ser Cys Phe Gly Ser Leu Gln Met Ser Leu Pro Thr 11e Phe Leu Ala Ser Ser Arg Asp 

His

<211> 202 <212> PRT <213> Homo sapiens <400> 4750 Met Thr Gly Ser Asn Ser His Ile Thr Ile Leu 11e Leu Asn Ala Asn Gly Leu Asn Ala Pro Ile Lys Arg His Arg Leu Thr Asn Trp Ile Lys Ser Gln Asp Pro Ser Val Cys Cys Ile Glu Glu Thr His Leu Met Cys Arg Asp Thr His Gly Leu Lys Ile Lys Gly Trp Arg Lys Ile Cys Gln Ala Asn Gly Lys Gln Lys Lys Glu Gly Val Ala Ile Leu Val Ser Asp Lys Thr Gly Phe Lys Pro Thr Lys Ile Lys Arg Asp Lys Glu Gly His Tyr Ile Met Val Lys Gly Ser Ile Gln Gln Glu Glu Leu Thr Val Leu Asn Ile Cys Ala Pro Asn Ile Gly Ala Pro Arg Phe Ile Lys Gln Val Leu Ser Asp Leu Gln Ser Asp Leu Asp Ser His Thr lle lle Met Gly Asp Phe Asn Thr Pro Leu Ser Thr Leu Asp Arg Ser Thr Arg Gln Lys Val Asn Lys Asp Ile Gln Glu Leu Asn Thr Ala Leu His Gln Ala Asp Leu lle Asp Ile Tyr Arg Thr Leu His Pro Thr Ser Thr Glu Tyr Thr Phe Phe Ser Ala Pro His Leu Phe Gln Asn

<210> 4750

<211> 512

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<212> PRT
<213> Homo sapiens
<400> 4751
Met Gln Lys Leu Leu Arg Pro Ser Ser Val Pro Phe Leu Ser Ile Ser
                                     10
Val Thr Val Ala Thr Pro Phe Leu Ser Leu Pro Pro Lys Val Ala Asn
                                 25
Gln Pro Met Ser Ala Ala Ala Ala Gly Ser Ser Leu Lys Arg Gln Leu
         35
                             40
                                                 45 . . .
Ser Tyr Ser Arg Tyr Leu Ala Leu Ser Ser Thr Asn Thr Cys Ser Val
                         55
                                             60
Cys Arg Cys Leu Ser Leu Thr His Thr His Ser His Pro Lys Asn Asn
                     70
                                         75
                                                              80
65
Lys Thr Leu Leu Leu Leu Asn His Ser Arg Asn Arg Ser Leu His Ser
                 85
                                     90
Ala Ser Glu Gly Ser Phe Ile Thr Gln Pro Asp Pro Val Glu Tyr Gly
                                105
                                                     110
Ser Leu Val Asp Ser Lys Glu Lys Pro Phe Asn Ser Arg Leu Asn Arg
        115
                            120
                                                125
Arg Gln Lys Gly Ser Thr Ser Ser Ser Pro Ala Pro Ser Asn Pro Asp
                        135
                                            140
Leu Leu Ala 11e Pro Gly Val Gly Pro Arg Asn Phe Arg Lys Leu Val
                    150
                                        155
                                                             160
145
Gln Lys Gly Ile Ala Gly Val Ala Gln Leu Lys Gln Leu Tyr Lys Asp
                165
                                    170
Lys Ser Val Asp Glu Glu Glu Leu Glu Asp Asn Ser Ser Ser Val
                                185
                                                     190
Gln Lys Lys Arg Leu Thr Phe Cys Val Glu Gly Asn Ile Ser Val Gly
                            200
                                                205
        195
Lys Thr Thr Phe Leu Gln Arg Ile Ala Asn Glu Thr Ile Glu Leu Arg
                        215
                                            220
Asp Leu Val Glu Val Val Pro Glu Pro Ile Ser Lys Trp Gln Asp Val
225
                    230
                                        235
                                                             240
```

Gly Pro Asp His Phe Asn Ile Leu Asp Ala Phe Tyr Ala Glu Pro Gln

				245					250					255	
Arg	Tyr	Ala	Tyr	Thr	Phe	Gln	Asn	Tyr	Val	Phe	Val	Thr	Arg	Val	Met
			260					265					270		
Gln	Glu	Arg	Glu	Ser	Ser	Ala	Gly	He	Lys	Pro	Leu	۸rg	Leu	Met	Glu
		275					280					285			
Arg	Ser	Val	Phe	Ser	Asp	Arg	Met	Val	Phe	Val	Arg	Ala	Val	His	Glu
	290					295					300				
Ala	Asn	Trp	Met	Asn	Gly	Met	Glu	Пe	Ser	He	Tyr	Asp	Ser	Trp	Phe
305					310					315					320
Asp	Pro	Val	Val	Ser	Ser	Leu	Pro	Gly	Leu	Ile	Pro	Asp	Gly	Phe	He
				325					330					335	
Tyr	Leu	Arg	Ala	Ser	Pro	Asp	Thr	Cys	His	Lys	Arg	Met	Met	Leu	Arg
			340					345					350		
Lys	Arg	Thr	Glu	Glu	Gly	Gly	Val	Ser	Leu	Asp	Tyr	Leu	Cys	Asp	Leu
		355					360					365			
His	Glu	Lys	His	Glu	Ser	Trp	Leu	Phe	Pro	Ser	Gln	Ser	Gly	Asn	His
	370					375					380				
Gly	Val	Leu	Ser	Val	Asn	Gln	Leu	Pro	His	His	He	Asp	Asn	Ser	Leu
385					390					395					400
His	Pro	Asp	Ile	Arg	Asp	Arg	Val	Phe	Tyr	Leu	Glu	Gly	Gly	His	Met
				405					410					415	
His	Ser	Ser	Ile	Gln	Lys	Val	Pro	Ala	Leu	Val	Leu	Asp	Cys	Glu	Pro
			420					425					430		
Asn	lle	Asp	Phe	Ser	Lys	Asp	lle	Glu	Ala	Lys	Arg	G]n	Tyr	Ala	Arg
		435					440					445			
Gln	Val	Ala	Glu	Phe	Phe	Glu	Phe	Val	Lys	Lys	Arg	Asn	Glu	Val	Ser
	450					455					460				
Ser	Lys	Glu	Gly	Ser	Ser	Gln	Ala	GIn	Pro	G1n	Val	Leu	Leu	Pro	His
465					470					475					480
Glu	Gly	G1 y	Leu	Trp	Leu	Pro	Asp	Gly	Lys	Pro	Phe	Pro	Arg		Ala
				485					490					495	
Leu	Lys	Ser	Leu	Asp	Phe	Arg	Gln	Ala	Ala	Thr	Ser	Phe		Ser	Gly
			500					505					510		

<211> 277

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<212> PRT
<213> Homo sapiens
<400> 4752
Met Phe Val Cys Val Thr Ser Ile Thr Val Ile Ile Val Ser Lys Asp
Arg Glu Phe Cys Leu His Phe Val Met Asp Gly Ser Phe Leu Cys Ser
                                                      30
                                 25
Gln Thr Gly Lys Lys Leu Met Ala Lys Cys Arg Met Leu Ile Gln Glu
                              40
Asn Gln Glu Leu Gly Arg Gln Leu Ser Gln Gly Arg Ile Ala Gln Leu
                         55
                                              60
Glu Ala Glu Leu Ala Leu Gln Lys Lys Tyr Ser Glu Glu Leu Lys Ser
                                          75
                                                              80
                     70
 65
Ser Gln Asp Glu Leu Asn Asp Phe Ile Ile Gln Leu Asp Glu Glu Val
                                      90
                 85
Glu Gly Met Gln Ser Thr Ile Leu Val Leu Gln Gln Gln Leu Lys Glu
                                 105
                                                     110
Thr Arg Gln Gln Leu Ala Gln Tyr Gln Gln Gln Gln Ser Gln Ala Ser
                                                 125
        115
                             120
Ala Pro Ser Thr Ser Arg Thr Thr Ala Ser Glu Pro Val Glu Gln Ser
                        135
                                             140
Glu Ala Thr Ser Lys Asp Cys Ser Arg Leu Thr Asn Gly Pro Ser Asn
                                                              160
                    150
                                         155
145
Gly Ser Ser Ser Arg Gln Arg Thr Ser Gly Ser Gly Phe His Arg Glu
                                     170
                165
Gly Asn Thr Thr Glu Asp Asp Phe Pro Ser Ser Pro Gly Asn Gly Asn
                                                     190
                                 185
Lys Ser Ser Asn Ser Ser Glu Glu Arg Thr Gly Arg Gly Gly Ser Gly
                             200
                                                 205
        195
Tyr Val Asn Gln Leu Ser Ala Gly Tyr Glu Ser Val Asp Ser Pro Thr
                        215
                                             220
Gly Ser Glu Asn Ser Leu Thr His Gln Ser Asn Asp Thr Asp Ser Ser
225
                    230
                                         235
                                                              240
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His Asp Pro Gln Glu Glu Lys Ala Val Ser Gly Lys Gly Asn Arg Thr

Val Gly Ser Arg His Val Gln Asn Gly Leu Asp Ser Ser Val Asn Val Gln Gly Ser Val Leu <210> 4753 <211> 528 <212> PRT <213> Homo sapiens <400> 4753 Met Ala Val Gly Gln Leu Val Pro Ser Asn Leu Phe Leu Asn His Ser Ala Ala Thr Thr Leu Ile Pro Thr Ser Thr Pro Pro Arg His Arg His Leu Leu Cys Ile Ser Ser Ala Asn His Thr Thr Ala Thr Asp Asn Asp Ser Pro Phe Pro Ser Phe Gly Arg Val Lys Thr Leu Leu Val His Arg Arg Arg Lys Asp Gln Ser His Arg Arg Ala Val Gln Leu Glu Asp Asp Asn Asp Asp Asp Ile Ala Pro Arg Pro Arg Arg Ser Gln Ser Arg Ser Arg Gly Gly Glu Arg Trp Asp Met Ile Pro Asn Tyr Thr Pro Gln Ser Lys Ser Ala Thr Asp Thr Lys Phe Phe Ser Leu Lys Ser Phe Lys Glu lle Gly Cys Ser Glu Tyr Met Ile Glu Ser Leu Gln Lys Leu Leu Leu Ser Arg Pro Ser His Val Gln Ala Met Ala Phe Ala Pro Val Ile Ser Gly Lys Thr Cys Val Ile Ala Asp Gln Ser Gly Ser Gly Lys Thr Leu 

Ala Tyr Leu Ala Pro Ile Ile Gln Leu Leu Arg Leu Glu Glu Leu Glu

			180					185					190		
G1 y	Arg	Ser	Ser	Lys	Ser	Ser	Ser	Gln	Ala	Pro	Arg	Val	Leu	Val	Leu
		195					200					205			
Ala	Pro	Thr	Ala	Glu	Leu	Ala	Ser	Gln	Val	Leu	Asp	Asn	Cys	Arg	Ser
	210					215					220				
Leu	Ser	Lys	Ser	Gly	Val	Pro	Phe	Lys	Ser	Met	Val	Val	Thr	Gly	Gly
225					230					235					240
Phe	Arg	Gln	Lys	Thr	Gln	Leu	Glu	Asn	Leu	Gln	Gln	G1 y	Val	Asp	Val
				245					250					255	
Leu	Ile	Ala	Thr	Pro	Gly	Arg	Phe	Leu	Phe	Leu	Ile	His	Glu	Gly	Phe
			260					265					270		
Leu	Gln	Leu	Thr	Asn	Leu	Arg	Cys	Ala	He	Leu	Asp	Glu	Val	Asp	He
		275					280					285			
Leu	Phe	Gly	Asp	Glu	Asp	Phe	Glu	Val	Ala	Leu	Gln	Ser	Leu	Пe	Asn
	290					295					300				
Ser	Ser	Pro	Val	Asp	Thr	Gln	Tyr	Leu	Phe	Val	Thr	Ala	Thr	Leu	Pro
305					310					315					320
Lys	Asn	Val	Tyr	Thr	Lys	Leu	Val	Glu	Val	Phe	Pro	Asp	Cys	Glu	Met
				325					330					335	
Ile	Met	Gly	Pro	Gly	Met	His	Arg	He	Ser	Ser	Arg	Leu	Gln	Glu	He
			340					345					350		
He	Val	Asp	Cys	Ser	Gly	Glu	Asp	Gly	Gln	Glu	Lys	Thr	Pro	Asp	Thr
		355					360					365			
Ala	Phe	Leu	Asn	Lys	Lys	Thr	Ala	Leu	Leu	Gln	Leu	Val	Glu	G]u	Asn
	370					375					380				
	Val	Pro	Arg	Thr				Cys	Asn				Thr	Cys	Arg
385															400
Lys	Val	Glu	Asn		Leu	Lys	Arg	Phe		Arg	Lys	Gly	Asn		Val
				405					410					415	
Gln	Val	Leu			His	Ala	Ala		Thr	GIn	Glu	Ser		Leu	Ala
			420		m		0	425	C	,	63	v	430	C 1	131
Ser	Met			Phe	Thr	Arg		Pro	Ser	Lys	GIy		Ser	GIn	Phe
	., -	435					440		63	3.1		445	TI	Δ.	W - 3
Met		_	lhr	Asp	Arg			Arg	61 y	116		rne	ıhr	arg	vai
	450		7.1		Di	455		D			460	C :	C1.	т	V = 1
Asp	His	val	He	Leu	Phe	Asp	Phe	rro	Arg	Asp	Pro	ser	610	ıyr	Val

Arg Arg Val Gly Arg Thr Ala Arg Gly Ala Lys Gly Val Gly Lys Ala Phe Ile Phe Val Val Gly Lys Gln Val Ser Leu Ala Arg Lys Ile Met Glu Arg Asn Gln Lys Gly His Pro Leu His Asp Val Pro Ser Ala Tyr <210> 4754 <211> 238 <212> PRT <213> Homo sapiens <400> 4754 Met Cys Gly Leu Ser Phe Met Leu Phe Arg Ala Cys Leu Lys Met Asp Leu Gly Val Phe Ile Cys Val Phe Ile Ser Phe Ser Pro Leu Phe Lys Ser Thr Ala Asp Cys Pro Asp Ala Val Pro Ser Ser Ala Glu Thr Gly Gly Thr Asn Tyr Leu Ala Pro Gly Gly Leu Ser Asp Ser Gln Leu Leu Leu Glu Pro Gly Asp Arg Ser His Trp Cys Val Val Ala Tyr Trp Glu Glu Lys Thr Arg Val Gly Arg Leu Tyr Cys Val Gln Glu Pro Ser Leu Asp lle Phe Tyr Asp Leu Pro Gln Gly Asn Gly Phe Cys Leu Gly Gln Leu Asn Ser Asp Asn Lys Ser Gln Leu Val Gln Lys Val Arg Ser Lys lle Gly Cys Gly Ile Gln Leu Thr Arg Glu Val Asp Gly Val Trp Val Tyr Asn Arg Ser Ser Tyr Pro Ile Phe Ile Lys Ser Ala Thr Leu Asp  Asn Pro Asp Ser Arg Thr Leu Leu Val His Lys Val Phe Pro Gly Phe Ser Ile Lys Ala Phe Asp Tyr Glu Lys Ala Tyr Ser Leu Gln Arg. Pro Asn Asp His Glu Phe Met Gln Gln Pro Trp Thr Gly Phe Thr Val Gln lle Ser Phe Val Lys Gly Trp Gly Gln Cys Tyr Thr Arg Gln Phe lle Ser Ser Cys Pro Cys Trp Leu Glu Val Ile Phe Asn Ser Arg 

<210> 4755

<211> 307

<212> PRT

<213> Homo sapiens

<400> 4755

Met Gln Ala Leu Ser Thr Val Pro Leu Asp Trp Val Thr Val Pro Lys Leu Gln Glu Cys Gly Ala Arg Pro Ala Met Glu Lys Pro Thr Arg Val Val Gly Gly Phe Gly Ala Ala Ser Gly Glu Val Pro Trp Gln Val Ser Leu Lys Glu Gly Ser Arg His Phe Cys Gly Ala Thr Val Val Gly Asp Arg Trp Leu Leu Ser Ala Ala His Cys Phe Asn His Thr Lys Val Glu Gln Val Arg Ala His Leu Gly Thr Ala Ser Leu Leu Gly Leu Gly Gly Ser Pro Val Lys lle Gly Leu Arg Arg Val Val Leu His Pro Leu Tyr Asn Pro Gly 11e Leu Asp Phe Asp Leu Ala Val Leu Glu Leu Ala Ser 

Pro Leu Ala Phe Asn Lys Tyr 11e Gln Pro Val Cys Leu Pro Leu Ala

Ile Gln Lys Phe Pro Val Gly Arg Lys Cys Met Ile Ser Gly Trp Gly Asn Thr Gln Glu Gly Asn Ala Thr Lys Pro Glu Leu Leu Gln Lys Ala Ser Val Gly Ile Ile Asp Gln Lys Pro Cys Ser Val Leu Tyr Asn Phe Ser Leu Thr Asp Arg Met Ile Cys Ala Gly Phe Leu Glu Gly Lys Val Asp Ser Cys Gln Gly Asp Ser Gly Gly Pro Leu Ala Cys Glu Glu Ala Pro Gly Val Phe Tyr Leu Ala Gly Ile Val Ser Trp Gly Ile Gly Cys Ala Gln Val Lys Lys Pro Gly Val Tyr Thr Arg lle Thr Arg Leu Lys Gly Trp Ile Leu Glu Ile Met Ser Ser Gln Pro Leu Pro Met Ser Pro Pro Ser Thr Thr Arg Met Leu Ala Thr Thr Ser Pro Arg Thr Thr Ala Gly Leu Thr Val Pro Gly Ala Thr Pro Ser Arg Pro Thr Pro Gly Leu Pro Ala Gly 

<210> 4756

<211> 583

<212> PRT

<213> Homo sapiens

<400> 4756

 Met Ser Val 11e Val Lys Thr Gln Glu Gly Asp I1e Leu Leu Phe Cys

 1
 5
 10
 15

 Lys Gly Ala Asp Ser Ala Val Phe Pro Arg Val Gln Asn His Glu I1e
 20
 25
 30

 Glu Leu Thr Lys Val His Val Glu Arg Asn Ala Met Asp Gly Tyr Arg
 35
 40
 45

Thr	Leu 50	Cys	Val	Ala	Phe	Lys 55	Glu	lle	Ala	Pro	Asp 60	Asp	Tyr	Glu	Arg
	Asn	Arg	Gln	Leu	11e 70	Glu	Ala	Lys	Met	Ala 75	Leu	Gln	Asp	Arg	Glu 80
65 Glu	Lys	Met	Glu			Phe	Asp	Лѕр			Thr	Asn	Met		
He	Gly	Ala		85 Ala	Val	Glu	Asp		90 Leu	Gln	Asp	Gln		95 Ala	Glu
Thr	Ile		100 Ala	Leu	His	Ala		105 Gly	Leu	Lys	Val	Trp 125	110 Val	Leu	Thr
Gly	Asp 130	115 Lys	Met	Glu	Thr	Ala 135	120 Lys	Ser	Thr	Cys	Tyr 140		Cys	Arg	Leu
		Thr	Asn	Thr	Glu 150	Leu	Leu	Glu	Leu	Thr 155		Lys	Thr	Ile	G1u 160
145 Glu	Ser	Glu	Arg			Asp	Arg	Leu			Leu	Leu	He	Glu 175	
Arg	Lys	Lys	Leu 180	165 Leu	His	G1u	Phe	Pro 185	170 Lys	Ser	Thr	Arg	Ser 190		Lys
Lys	Ala	Trp 195		Glu	His	Gln	G1u 200		Gly	Leu	Ile	Ile 205		Gly	Ser
Thr	Leu 210		Leu	He	Leu	Asn 215		Ser	G1n	Asp	Ser 220		Ser	Asn	Asn
Tyr 225		Ser	lle	Phe	Leu 230	Gln	He	Cys	Met	Lys 235		Thr	Ala	Val	Leu 240
	Cys	Arg	Met	Ala 245		Leu	Gln	Lys	Ala 250		He	Val	Arg	Met 255	
Lys	Asn	Leu	Lys 260		Ser	Pro	lle	Thr 265		Ser	He	Gly	Asp 270		Ala
Asn	Asp	Val 275		Met	He	Leu	Glu 280		His	Val	Gly	11e 285		lle	Lys
Gly	Lys 290	Glu	Gly	Arg	Gln	Ala 295		Arg	Asn	Ser	Asp 300		Ser	Val	Pro
Lys 305	Phe	Lys	His	Leu	Lys 310	Lys	l.eu	Leu	Leu	Ala 315	His	Gly	His	Leu	Tyr 320
Tyr	Val	Arg	11e	Ala 325	His	Leu	Val	G1n	Tyr 330	Phe	Phe	Tyr	Lys	Asn 335	

Cys	Phe	He	Leu	Pro	Gln	Phe	Leu	Tyr	Gln	Phe	Phe	Cys	Gly	Phe	Ser
			340					345					350		
Gln	Gln	Pro	Leu	Tyr	Asp	Ala	Ala	Tyr	Leu	Thr	Met	Tyr	Asn	He	Cys
		355					360					365			
Phe	Thr	Ser	Leu	Pro	Пе	Leu	Ala	Tyr	Ser	Leu	Leu	Glu	Gln	His	Пe
	370					375					380				
Asn	He	Asp	Thr	Leu	Thr	Ser	Asp	Pro	Arg	Leu	Tyr	Met	Lys	lle	Ser
385					390					395					400
Gly	Asn	Ala	Met	Leu	Gln	Leu	Gly	Pro	Phe	Leu	Tyr	Trp	Thr	Phe	Leu
				405					410					415	
Ala	Ala	Phe	Glu	Gly	Thr	Val	Phe	Phe	Phe	Gly	Thr	Tyr	Phe	Leu	Phe
			420					425					430		
Gln	Thr	Ala	Ser	Leu	Glu	Glu	Asn	G1 y	Lys	Val	Tyr	Gly	Asn	Trp	Thr
		435					440					445			
Phe	Gly	Thr	He	Va1	Phe	Thr	Val	Leu	Va]	Phe	Thr	Va]	Thr	Leu	Lys
	450					455					460				
Leu	Ala	Leu	Asp	Thr	Arg	Phe	Trp	Thr	Trp	lle	Asn	His	Phe	Val	
465					470					475					480
Trp	Gly	Ser	Leu		Phe	Tyr	Val	Phe		Ser	Phe	Phe	Trp		Gly
				485					490					495	
He	He	Trp		Phe	Leu	Lys	Gln		Arg	Met	Tyr	Phe		Phe	Ala
			500	_	4	_		505					510		
GIn	Met		Ser	Ser	Val	Ser		Trp	Leu	Ala	lle		Leu	Leu	He
ro.	<b>11.1</b>	515	,	DI	15	6.1	520			7.3	V 1	525	,		17 1
Phe		Ser	Leu	Phe	Pro		116	Leu	Leu	116		Leu	Lys	Asn	val
	530		C	4.7		535		,	C	C	540	Α.	A 1	C	Δ
	Arg	Arg	Ser	ATA	Arg	Arg	Asn	Leu	Ser		Arg	Arg	мта	Ser	560
545	1	C	A 7 -	Δ	550	C	V - 1	Λ	D	555	1	1	Λ	Tl	
ser	Leu	ser	Ala		Pro	ser	vaı	лгg		Leu	Leu	Leu	агд		rne
C	Δ	C1.	C	565	V 1	1			570					575	
ser	Asp	GIU		Asn	Val	Leu									
			580												

<210> 4757 <211> 171

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<212> PRT
<213> Homo sapiens
<400> 4757
Met His Leu Trp Ar
I
Ala Phe Asp Glu Pr
20
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Met His Leu Trp Arg Tyr Pro Ser Leu Ser Ile His Gly Ile Glu Gly

I 5 10 15

Als Pho Asp Cly Pro Cly Thr Lys Thr Vol Ile Pro Cly Arg Vol Ile

Ala Phe Asp Glu Pro Gly Thr Lys Thr Val Ile Pro Gly Arg Val Ile . .  $20 \hspace{1.5cm} 25 \hspace{1.5cm} 30$ 

Gly Lys Phe Ser Ile Arg Leu Val Pro His Met Asn Val Ser Ala Val 35 40 45

Glu Lys Gln Val Thr Arg His Leu Glu Asp Val Phe Ser Lys Arg Asn 50 55 60

Ser Ser Asn Lys Met Val Val Ser Met Thr Leu Gly Leu His Pro Trp 65 70 75 80

Ile Ala Asn Ile Asp Asp Thr Gln Tyr Leu Ala Ala Lys Arg Ala Ile 85 90 95

Arg Thr Val Phe Gly Thr Glu Pro Asp Met Ile Arg Asp Gly Ser Thr
100 105 110

Ile Pro Ile Ala Lys Met Phe Gln Glu Ile Val His Lys Ser Val Val

115 120 125

Leu 11e Pro Leu Gly Ala Val Asp Asp Gly Glu His Ser Gln Asn Glu 130 135 140

Lys 11e Asn Arg Ser Ala Asp Ala Cys Ala Met Cys Leu Ser Leu Leu 145 150 155 160

Pro Leu Leu His Thr Pro Gly Ser Thr Arg Gly 165 170

<210> 4758

<211> 446

<212> PRT

<213> Homo sapiens

<400> 4758

Met Leu Gly Gly Val Val Glu Leu Ala Ala Ala Ser Ser Phe Pro Leu

1				5					10					15	
Leu	Glu	Gln	Phe	Ala	Gly	Asp	Gly	Phe	His	Ala	Asp	Gly	Asp	Asp	Val
			20					25					30		
Leu	Thr	Glu	Leu	Cys	Ala	Pro	Asp	Gly	Ala	Pro	Pro	Gly	Val	Val	Pro
		35					40					45			
Val	Leu	Ser	Ala	His	Ser	Pro	Ser	Leu	Gly	Ser	Glu	Tyr	Phe	He	Arg
	50					55					60				
Leu	Glu	Glu	Ala	Ala	Pro	Ala	Thr	Gly	His	Asp	Pro	Asp	Cys	Ala	Gly
65					70					75					80
Cys	Ala	Pro	Ser	Pro	Pro	Ala	He	Ala	Asp	Gln	Asp	Asp	Asp	Ser	Asp
				85					90					95	
Gly	Ser	Thr	Ala	Ala	Ser	Leu	Ala	Met	G] u	Pro	Leu	Leu	Gly	His	Gly
			100					105					110		
Pro	Pro	Val	Asp	Va]	Pro	Trp	Gly	Arg	Gly	Asp	His	Tyr	Pro	Arg	Arg
		115					120					125			
Ser		Ala	Arg	Asp	Pro		Cys	Pro	Ser	Arg		Pro	Ser	Pro	Ser
	130					135					140				
	Gly	Pro	Leu	Ser	Leu	Ala	Glu	Gly	Gly		Glu	Asp	Ala	Asp	
145				Б.	150				*** *	155					160
Gly	Val	Ala	Ala		Cys	Pro	Ala	Phe		Glu	Asp	Pro	Leu		Thr
•			0.1	165		0.1			170	,	10		m	175	<b>6</b> 3
Ser	Pro	Leu		Ser	Ser	Gly	Ala		Pro	Leu	Pro	Leu		Gly	Glu
	C 1	,	180	C 1	V. 1	61	. 1	185		. 1		C1	190	C 1	
Asp	Glu		GIU	61 <b>u</b>	Val	Gly		Arg	Arg	Ala	Ala		Arg	бГу	HIS
Т	Λ	195	A a.s.	V-1	C	11.	200	A	Aan	Con.	C1	205 San	A 100 cm	Cua	Dwo
тр	210		ASII	vai	Ser		ASII		ASII	261	220		Arg	Cys	L10
Glu			Acn	Pro	Va]				Glv	Hic			Glv	Cve	Pro
225	261	пр	nsp	110	230	261	A1 a	Ory	Oly	235	ма	Oju	Oly	Cys	240
	Pro	lve	Gln	Thr	Pro	Arg	Ala	Ser	Pro		Pro	Gly	Tvr	Pro	
561	110	L) 3	0,111	245	110	ms	ma	501	250	014	110	V, 1, 3		255	77.1
Glu	Pro	Leu	Leu		Leu	Gln	Ala	Ala		Ala	Gln	Glu	Pro		Cvs
O, u		200	260	~ • <i>y</i>		<b>0111</b>		265					270	1	-,5
Cvs	Pro	Glv		Pro	His	Leu	Cvs		Ala	Gln	Glv	Leu		Pro	Ala
- , -		275					280				2	285			
Pro	Cys		Val	Thr	Pro	Ser	•	Thr	Glu	Thr	Ala		Ser	GIy	Gly

	290					295					300				
Asp	His	Pro	Gln	Ala	Glu	Pro	Lys	Leu	Ala	Thr	Glu	Ala	Glu	Gly	Thr
305					310					315					320
Thr	Gly	Pro	Arg	Leu	Pro	Leu	Pro	Ser	Val	Pro	Ser	Pro	Ser	Gln	Glu
				325					330					335	
Gly	Ala	Pro	Leu	Pro	Ser	Glu	Glu	Ala	Ser	Ala	Pro	Asp	Ala	Pro	Asp
			340					345					350		
Ala	Leu	Pro	Asp	Ser	Prọ	Thr	Pro	Ala	Thr	Gly	Gly	Glu	Val	Ser	Ala
		355					360					365			
Ile	Lys	Leu	Ala	Ser	Ala	Leu	Asn	Gly	Ser	Ser	Ser	Ser	Pro	Glu	Val
	370					375					380				
Glu	Ala	Pro	Ser	Ser	Glu	Asp	Glu	Asp	Thr	Ala	Glu	Ala	Thr	Ser	Gly
385					390					395					400
lle	Phe	Thr	Asp	Thr	Ser	Ser	Asp	G1 y	Leu	Gln	Ala	Arg	Arg	Pro	Asp
				405					410					415	
Val	Val	Pro	Ala	Phe	Arg	Ser	Leu	Gln	Lys	Gln	Trp	Pro	Gln	Arg	Glu
			420					425					430		
Glu	Ser	Leu	Pro	Arg	Leu	Cys	Leu	Leu	Leu	Arg	Pro	Arg	Gly		
		435					440					445			

<210> 4759

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4759

Met Val Thr Lys Ala Thr Phe His Gln Lys Thr Gln Cys Trp Ala Cys I  $10^{11}$ 

Gln Ala Leu Ile Thr Leu Ser Ser Cys Ser Leu Gly Lys Cys Thr Phe

65 70 75 Tyr Thr Asn Val Arg Gln Phe Pro Gln Leu Pro Leu Leu Asp Ile Lys 90 Glu Phe Thr Phe Leu Thr Ile Phe Gln Ser 100 105 <210> 4760 <211> 107 <212> PRT <213> Homo sapiens <400> 4760 Met Tyr Leu Leu Ile Met Glu Phe Met Ser Phe Pro Ser Phe Ala Trp l 5 10 15 Pro Arg Phe Phe Phe Ser Leu Lys Phe Leu Leu Arg Cys Tyr Leu Gly 25 Cys Leu His Tyr Lys Gln Ala Ala Leu Pro Pro Leu Phe Val Val Thr 40 45 Gly Glu Lys Pro Tyr Lys Cys Thr Trp Glu Gly Cys Asp Trp Arg Phe 50 55 60 Ala Arg Ser Asp Glu Leu Thr Arg His Tyr Arg Lys His Thr Gly Ala 70 75 Lys Pro Phe Gln Cys Gly Val Cys Asn Arg Ser Phe Ser Arg Ser Asp 85 90 95 His Leu Ala Leu His Met Lys Arg His Gln Asn 100 105 <210> 4761

<211> 667

<212> PRT

<213> Homo sapiens

<400> 4761

Met Glu Asp Leu Ser Ser Pro Asp Ser Thr Leu Leu Gln Gly Gly His

1				5					10					15	
Asn	Leu	Leu	Ser	Ser	Ala	Ser	Phe	Gln	Glu	Ala	Val	Thr	Phe	Lys	Asp
			20					25					30		
Val	He	Val	Asp	Phe	Thr	Gln	Glu	Glu	Trp	Lys	Gln	Leu	Asp	Pro	Gly
		35					40					45			
Gln	Arg	Asp	Leu	Phe	Arg	Asp	Val	Thr	Leu	Glu	Asn	Tyr	Thr	His	Leu
	50					55					60				
Val	Ser	He	Gly	Leu	Gln	Val	Ser	Lys	Pro	Asp	Val	lle	Ser	G1n	Leu
65					70					75					80
Glu	Gln	Gly	Thr	Glu	Pro	Trp	lle	Met	Glu	Pro	Ser	He	Pro	Val	Gly
				85					90					95	
Thr	Cys	Ala	Asp	Trp	Glu	Thr	Arg	Leu	Glu	Asn	Ser	Val	Ser	Ala	Pro
			100					105					110		
Glu	Pro		He	Ser	Glu	Glu		Leu	Ser	Pro	G] u		lle	Val	G]u
		115					120	_				125			
Lys		Lys	Arg	Asp	Asp	Ser	Trp	Ser	Ser	Asn		Leu	Glu	Ser	Trp
0.1	130	0.1	0.1		,	135		0.1	0.1		140	0.1	0.1	æ.	
	Tyr	Glu	Gly	Ser		Glu	Arg	GIn	Gln		Asn	GIn	GIn	Thr	
145	,	0.1	T 1	,	150	T)	0.1	,	T)	155	D		T	6.1	160
Pro	Lys	GIU	11e	Lys	vai	Thr	Glu	Lys	Inr	He	Pro	ser	rp	Glu	Lys
				165					170					175	
G1 <sub>v</sub>	Pro	Val	Acn		C111	Phe	Clv	lve		Val	Acn	Val	Sor		Acn
013	110	, a1	180	11311	010	1110	Oly	185	561	va1	поп	101	190	56.1	поп
l eu	Val	Thr		Glu	Pro	Ser	Pro		Glu	Thr	Ser	Thr		Aro	Ser
Lea	, 01	195	0111	010	110	501	200	oru	ora		001	205	Lyo	8	001
He	Lvs		Asn	Ser	Asn	Pro		Lvs	Lvs	Glu	Lvs		Cvs	Lvs	Cvs
	210					215		•	-		220		J	Ĭ	Ĭ
Asn		Cys	Gly	Lys	Ala	Phe	Ser	Tyr	Cys	Ser	Ala	Leu	Пе	Arg	His
225					230					235					240
Gln	Arg	Thr	His	Thr	Gly	Glu	Lys	Pro	Tyr	Lys	Cys	Asn	Glu	Cys	Glu
				245					250					255	
Lys	Ala	Phe	Ser	Arg	Ser	Glu	Asn	Leu	Пе	Asn	His	Gln	Arg	lle	His
			260					265					270		
Thr	Gly	Asp	Lys	Pro	Tyr	Lys	Cys	Asp	Gln	Cys	Gly	Lys	Gly	Phe	He
		275					280					285			

Glu	Gly 290	Pro	Ser	Leu	Thr	G1n 295	His	Gln	Arg	Ile	His 300	Thr	Gly	Glu	Lys
Pro	Tyr	Lys	Cys	Asp	Glu	Cys	Gly	Lys	Ala	Phe	Ser	G1n	Arg	Thr	His
305					310					315					320
Leu	Val	Gln	His	Gln	Arg	He	His	Thr	Gly	G1u	Lys	Pro	Tyr	Thr	Cys
				325					330					335	
Asn	Glu	Cys	Gly	Lys	Ala	Phe	Ser	Gln	Arg	G1 y	His	Phe	Met	Glu	His
			340					345					350		
Gln	Lys	Ile	His	Thr	Gly	Glu	Lys	Pro	Phe	Lys	Cys	Asp	Glu	Cys	Asp
		355					360					365			
Lys	Thr	Phe	Thr	Arg	Ser	Thr	His	Leu	Thr	Gln	His	Gln	Lys	He	His
	370					375					380				
Thr	Gly	Glu	Lys	Thr	Tyr	Lys	Cys	Asn	Glu	Cys	Gly	Lys	Ala	Phe	Asn
385					390					395					400
Gly	Pro	Ser	Thr		lle	Arg	His	His	Met	He	His	Thr	G1 y	Glu	Lys
				405					410					415	
Pro	Tyr	Glu		Asn	Glu	Cys	Gly		Ala	Phe	Ser	Gln		Ser	Asn
			420					425					430		
Leu	Thr		His	GIn	Lys	Thr		Thr	GIn	Glu	Lys		Tyr	Glu	Cys
	61	435	C1		41.	DI.	440	<b>A</b>	C	C	C	445	۸1	1	11.2 -
Lys		Cys	61 y	Lys	Ala		11e	Arg	ser	ser		Leu	Ala	Lys	HIS
C1	450	Il.	u; o	Tha	C1	455	Luc	Drag	Тиго	Cln	460	Uio	C1	Cva	C1v
465	MIG	116	1112	1111	470	Gju	Lys	110	1 9 1	475	Cys	1115	O1 u	Cys	480
	Thr	Phe	Ser	Tyr		Ser	Ser	leu	He		His	Arg	lve	He	
L) S	1111	THE	501	485	01,	561	501	БСС	490	0111	111.5	113 8	Буб	495	5
Thr	Glv	Glu	Arg		Tvr	Lvs	Cvs	Asn		Cvs	Glv	Arg	Ala	Phe	Asn
	•		500		-	-	-	505		,	•	Ü	510		
Gln	Asn	lle	His	Leu	Thr	Gln	His	Lys	Arg	Ile	His	Thr	Gly	Ala	Lys
		515					520					525			
Pro	Tyr	Glu	Cys	Ala	Glu	Cys	Gly	Lys	Ala	Phe	Arg	His	Cys	Ser	Ser
	530					535					540				
Leu	Ala	Gln	His	Gln	Lys	Thr	His	Thr	Glu	Glu	Lys	Pro	Tyr	Gln	Cys
545					550					555					560
Asn	Lys	Cys	Glu	Lys	Thr	Phe	Ser	Gln	Ser	Ser	His	Leu	Thr	Gln	His
				565					570					575	

Gln Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Asp Lys Ala Phe Ser Arg Ser Thr His Leu Thr Glu His Gln Asn Thr His Thr Gly Glu Lys Pro Tyr Asn Cys Asn Glu Cys Arg Lys Thr Phe Ser Gln Ser Thr Tyr Leu lle Gln His Gln Arg Ile His Ser Gly Glu Lys Pro Phe Gly Cys Asn Asp Cys Gly Lys Ser Phe Arg Tyr Arg Ser Ala Leu Asn Lys His Gln Arg Leu His Pro Gly Ile 

<210> 4762

<211> 460

<212> PRT

<213> Homo sapiens

<400> 4762

Met Glu Val Leu Glu Ser Gly Glu Gln Gly Val Leu Gln Trp Asp Arg Lys Leu Ser Glu Leu Ser Glu Pro Gly Asp Gly Glu Ala Leu Met Tyr His Thr His Phe Ser Glu Leu Leu Asp Glu Phe Ser Gln Asn Val Leu Gly Gln Leu Leu Asn Asp Pro Phe Leu Ser Glu Lys Ser Val Ser Met Glu Val Glu Pro Ser Pro Thr Ser Pro Ala Pro Leu lle Gln Ala Glu His Ser Tyr Ser Leu Cys Glu Glu Pro Arg Ala Gln Ser Pro Phe Thr His lle Thr Thr Ser Asp Ser Phe Asn Asp Asp Glu Val Glu Ser Glu Lys Trp Tyr Leu Ser Thr Asp Phe Pro Ser Thr Ser 11e Lys Thr Glu

Pro	Val	Thr	Asp	Glu	Pro	Pro	Pro	Gly	Leu	Val	Pro	Ser	Val	Thr	Leu
	130					135					140				
Thr	lle	Thr	Ala	11e	Ser	Thr	Pro	Leu	Glu	Lys	Glu	Glu	Pro	Pro	Leu
145					150					155					160
Glu	Met	Asn	Thr	Gly	Val	Asp	Ser	Ser	Cys	Gln	Thr	11e	He	Pro	Lys
				165					170					175	
He	Lys	Leu	Glu	Pro	His	Glu	Val	Asp	Gln	Phe	Leu	Asn	Phe	Ser	Pro
			180					185					190		
Lys	Glu	Ala	Pro	Val	Asp	His	Leu	His	Leu	Pro	Pro	Thr	Pro	Pro	Ser
		195					200					205			
Ser	His	Gly	Ser	Asp	Ser	Glu	Gly	Ser	Leu	Ser	Pro	Asn	Pro	Arg	Leu
	210					215					220				
His	Pro	Phe	Ser	Leu	Pro	Gln	Thr	His	Ser	Pro	Ser	Arg	Ala	Ala	Pro
225					230					235					240
Arg	Ala	Pro	Ser	Ala	Leu	Ser	Ser	Ser	Pro	Leu	Leu	Thr	Ala	Pro	His
				245					250					255	
Lys	Leu	Gln	Gly	Ser	Gly	Pro	Leu	Val	Leu	Thr	Glu	Glu	Glu	Lys	Arg
			260					265					270		
Thr	Leu	lle	Ala	Glu	Gly	Tyr	Pro	lle	Pro	Thr	Lys	Leu	Pro	Leu	Ser
		275					280					285			
Lys	Ser	Glu	Glu	Lys	Ala	Leu	Lys	Lys	lle	Arg	Arg	Lys	Ile	Lys	Asn
	290					295					300				
Lys	He	Ser	Ala	Gln	Glu	Ser	Arg	Arg	Lys	Lys	Lys	Glu	Tyr	Met	Asp
305					310					315					320
Ser	Leu	Glu	Lys	Lys	Val	Glu	Ser	Cys	Ser	Thr	Glu	Asn	Leu	Glu	Leu
				325					330					335	
Arg	Lys	Lys	Va]	Glu	Val	Leu	Glu	Asn	Thr	Asn	Arg	Thr	Leu	Leu	Gln
			340					345					350		
Gln	Leu	Gln	Lys	Leu	Gln	Thr	Leu	Val	Met	Gly	Lys	Val	Ser	Arg	Thr
		355					360					365			
Cys	Lys	Leu	Ala	Gly	Thr	Gln	Thr	Gly	Thr	Cys	Leu	Met	Val	Val	Va]
	370					375					380				
Leu	Cys	Phe	Ala	Val	Ala	Phe	Gly	Ser	Phe	Phe	Gln	Gly	Tyr	Gly	Pro
385					390					395					400
Tyr	Pro	Ser	Ala	Thr	Lys	Met	Ala	Leu	Pro	Ser	Gln	His	Ser	Leu	Gln
				405					410					415	

Glu Pro Tyr Thr Ala Ser Val Gly Lys Thr Ala Cys Gly Lys Leu Gly Arg Val Leu Phe Tyr Phe Pro Arg Ala Gly Phe Leu Ser Leu Pro Lys Gly Ile Phe Cys Glu Ser Pro Met Phe Lys Lys Trp 

<210> 4763

<211> 443

<212> PRT

<213> Homo sapiens

<400> 4763 Met Glu His Val Gln Gly Arg Ile Phe Arg Asp Leu Thr Ile Pro Gly Leu Ser Pro Ala Glu Arg Ser Ala Ile Tyr Val Ala Thr Val Glu Thr Leu Ala Gln Leu His Ser Leu Asn Ile Gln Ser Leu Gln Leu Glu Gly Tyr Gly Ile Gly Ala Gly Tyr Cys Lys Arg Gln Val Ser Thr Trp Thr Lys Gln Tyr Gln Ala Ala Ala His Gln Asp Ile Pro Ala Met Gln Gln Leu Ser Glu Trp Leu Met Lys Asn Leu Pro Asp Asn Asp Asn Glu Glu Asn Leu Ile His Gly Asp Phe Arg Leu Asp Asn Ile Val Phe His Pro 

Gly His Pro Leu Ser Asp Leu Ala His Phe Ser Leu Phe Tyr Phe Trp 

Lys Glu Cys Arg Val Ile Ala Val Leu Asp Trp Glu Leu Ser Thr Ile

Pro Arg Thr Val Pro Met lle Asn Gln Gly Ser Tyr Ser Glu Asn Ser 

Gly lle Pro Ser Met Glu Glu Leu lle Ser Ile Tyr Cys Arg Cys Arg 

Gly	Ile	Asn	Ser	He	Leu	Pro	Asn	Trp	Asn	Phe	Phe	Leu	Ala	Leu	Ser
			180					185					190		
Tyr	Phe	Lys	Met	Ala	Gly	Ile	Ala	Gln	Gly	Val	Tyr	Ser	Arg	Tyr	Leu
		195					200					205			
Leu	Gly	Asn	Asn	Ser	Ser	Glu	Asp	Ser	Phe	Leu	Phe	Ala	Asn	He	Val
	210					215					220				
Gln	Pro	Leu	Ala	Glu	Thr	Gly	Leu	Gln	Leu	Ser	Lys	Arg	Thr	Phe	Ser
225					230					235					240
Thr	Val	Leu	Pro	Gln	Ile	Asp	Thr	Thr	Gly	Gln	Leu	Phe	Val	Gln	Thr
				245					250					255	
Arg	Lys	Gly	Gln	Glu	Val	Leu	Ile	Lys	Val	Lys	His	Phe	Met	Lys	Gln
			260					265					270		
His	He	Leu	Pro	Ala	Glu	Lys	Glu	Val	Thr	Glu	Phe	Tyr	Val	Gln	Asn
		275					280					285			
Glu	Asn	Ser	Val	Asp	Lys	Trp	Gly	Lys	Pro	Leu	Val	11e	Asp	Lys	Leu
	290					295					300				
Lvc	Glu	Met	Ala	Lvs	Val	Glu	Gly	Leu	Trp	Asn	Leu	Phe	Leu	Pro	Ala
Lys	O I G	MC C		,			-		•						
305	oru	me c		-,-	310		·		•	315					320
305					310	Val				315					320
305					310					315					320
305 Val	Ser	Gly	Leu	Ser 325	310 His		Asp	Tyr	Ala 330	315 Leu	Ile	Ala	Glu	Glu 335	320 Thr
305 Val	Ser	Gly	Leu	Ser 325	310 His	Val	Asp	Tyr	Ala 330	315 Leu	Ile	Ala	Glu	Glu 335	320 Thr
305 Val Gly	Ser Lys	Gly Cys	Leu Phe 340	Ser 325 Phe	310 His Ala	Val	Asp Asp	Tyr Val 345	Ala 330 Phe	315 Leu Asn	Ile Cys	Ala Gln	Glu Ala 350	61u 335 Pro	320 Thr Asp
305 Val Gly	Ser Lys	Gly Cys	Leu Phe 340	Ser 325 Phe	310 His Ala	Val Pro	Asp Asp	Tyr Val 345	Ala 330 Phe	315 Leu Asn	Ile Cys	Ala Gln	Glu Ala 350	61u 335 Pro	320 Thr Asp
305 Val Gly Thr	Ser Lys Gly	Gly Cys Asn 355	Leu Phe 340 Met	Ser 325 Phe Glu	310 His Ala Val	Val Pro	Asp Asp His	Tyr Val 345 Leu	Ala 330 Phe Tyr	315 Leu Asn Gly	Ile Cys Ser	Ala Gln Glu 365	Glu Ala 350 Glu	G1u 335 Pro G1n	320 Thr Asp Lys
305 Val Gly Thr	Ser Lys Gly	Gly Cys Asn 355	Leu Phe 340 Met	Ser 325 Phe Glu	310 His Ala Val	Val Pro Leu	Asp Asp His	Tyr Val 345 Leu	Ala 330 Phe Tyr	315 Leu Asn Gly	Ile Cys Ser	Ala Gln Glu 365	Glu Ala 350 Glu	G1u 335 Pro G1n	320 Thr Asp Lys
305 Val Gly Thr Lys	Ser Lys Gly Gln 370	Gly Cys Asn 355 Trp	Leu Phe 340 Met Leu	Ser 325 Phe Glu Glu	310 His Ala Val Pro	Val Pro Leu Leu	Asp Asp His 360 Leu	Tyr Val 345 Leu Gln	Ala 330 Phe Tyr Gly	315 Leu Asn Gly Asn	Ile Cys Ser Ile 380	Ala Gln Glu 365 Thr	Glu Ala 350 Glu Ser	Glu 335 Pro Gln Cys	320 Thr Asp Lys
305 Val Gly Thr Lys	Ser Lys Gly Gln 370	Gly Cys Asn 355 Trp	Leu Phe 340 Met Leu	Ser 325 Phe Glu Glu	310 His Ala Val Pro	Val Pro Leu Leu 375	Asp Asp His 360 Leu	Tyr Val 345 Leu Gln	Ala 330 Phe Tyr Gly	315 Leu Asn Gly Asn	Ile Cys Ser Ile 380	Ala Gln Glu 365 Thr	Glu Ala 350 Glu Ser	Glu 335 Pro Gln Cys	320 Thr Asp Lys
305 Val Gly Thr Lys Cys 385	Ser Lys Gly Gln 370 Met	Gly Cys Asn 355 Trp	Leu Phe 340 Met Leu Glu	Ser 325 Phe Glu Glu Pro	310 His Ala Val Pro Asp 390	Val Pro Leu Leu 375	Asp Asp His 360 Leu Ala	Tyr Val 345 Leu Gln Ser	Ala 330 Phe Tyr Gly Ser	315 Leu Asn Gly Asn Asp 395	Ile Cys Ser Ile 380 Ala	Ala Gln Glu 365 Thr	Glu Ala 350 Glu Ser Asn	Glu 335 Pro Gln Cys	320 Thr Asp Lys Phe Glu 400
305 Val Gly Thr Lys Cys 385	Ser Lys Gly Gln 370 Met	Gly Cys Asn 355 Trp	Leu Phe 340 Met Leu Glu	Ser 325 Phe Glu Glu Pro	310 His Ala Val Pro Asp 390	Val Pro Leu Leu 375 Val	Asp Asp His 360 Leu Ala	Tyr Val 345 Leu Gln Ser	Ala 330 Phe Tyr Gly Ser	315 Leu Asn Gly Asn Asp 395	Ile Cys Ser Ile 380 Ala	Ala Gln Glu 365 Thr	Glu Ala 350 Glu Ser Asn	Glu 335 Pro Gln Cys	320 Thr Asp Lys Phe Glu 400
305 Val Gly Thr Lys Cys 385 Cys	Ser Lys Gly Gln 370 Met	Gly Cys Asn 355 Trp Thr	Leu Phe 340 Met Leu Glu	Ser 325 Phe Glu Glu Pro Arg 405	310 His Ala Val Pro Asp 390 Asp	Val Pro Leu Leu 375 Val	Asp His 360 Leu Ala Asp	Tyr Val 345 Leu Gln Ser	Ala 330 Phe Tyr Gly Ser Tyr 410	315 Leu Asn Gly Asn Asp 395 Val	Ile Cys Ser Ile 380 Ala Ile	Ala Gln Glu 365 Thr Thr	Glu Ala 350 Glu Ser Asn	Glu 335 Pro Gln Cys Ile Lys 415	320 Thr Asp Lys Phe Glu 400 Lys
305 Val Gly Thr Lys Cys 385 Cys	Ser Lys Gly Gln 370 Met Ser Trp	Gly Cys Asn 355 Trp Thr	Leu Phe 340 Met Leu Glu Gln Ser 420	Ser 325 Phe Glu Glu Pro Arg 405 Gly	310 His Ala Val Pro Asp 390 Asp	Val Pro Leu Leu 375 Val Glu Gly	Asp His 360 Leu Ala Asp	Tyr Val 345 Leu Gln Ser Ser Pro 425	Ala 330 Phe Tyr Gly Ser Tyr 410 Lys	315 Leu Asn Gly Asn Asp 395 Val	Ile Cys Ser Ile 380 Ala Ile	Ala Gln Glu 365 Thr Thr	Glu Ala 350 Glu Ser Asn	Glu 335 Pro Gln Cys Ile Lys 415	320 Thr Asp Lys Phe Glu 400 Lys
305 Val Gly Thr Lys Cys 385 Cys	Ser Lys Gly Gln 370 Met Ser Trp	Gly Cys Asn 355 Trp Thr	Leu Phe 340 Met Leu Glu Gln Ser 420	Ser 325 Phe Glu Glu Pro Arg 405 Gly	310 His Ala Val Pro Asp 390 Asp	Val Pro Leu Leu 375 Val	Asp His 360 Leu Ala Asp	Tyr Val 345 Leu Gln Ser Ser Pro 425	Ala 330 Phe Tyr Gly Ser Tyr 410 Lys	315 Leu Asn Gly Asn Asp 395 Val	Ile Cys Ser Ile 380 Ala Ile	Ala Gln Glu 365 Thr Thr	Glu Ala 350 Glu Ser Asn Gly Ala	Glu 335 Pro Gln Cys Ile Lys 415	320 Thr Asp Lys Phe Glu 400 Lys

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<210> 4764
<211> 370
<212> PRT
<213> Homo sapiens
<400> 4764
Met Met Thr Pro Gln Val Ile Thr Pro Gln Gln Met Gln Gln Ile Leu
               5
                                10
Gln Gln Gln Val Leu Ser Pro Gln Gln Leu Gln Ala Leu Leu Gln Gln
           20
                             25
                                               30
Gln Gln Ala Val Met Leu Gln Gln Asp Phe Leu Asp Ser Gly Leu Glu
Asn Phe Arg Ala Ala Leu Glu Lys Asn Gln Gln Leu Gln Glu Phe Tyr
                      55
                                        60
Lys Lys Gln Gln Glu Gln Leu His Leu Gln Leu Leu Gln Gln Gln
                  70
                                    75
65
90
               85
100
                            105
                                              110
Gln Gln Gln His Pro Gly Lys Gln Ala Lys Glu Gln Gln Gln
                        120
                                          125
Gln Gln Gln Gln Gln Leu Ala Ala Gln Gln Leu Val Phe Gln Gln
                     135
                                       140
Gln Leu Leu Gln Met Gln Gln Leu Gln Gln Gln His Leu Leu Ser
                 150
                                   155
                                                     160
145
Leu Gln Arg Gln Gly Leu Ile Ser Ile Pro Pro Gly Gln Ala Ala Leu
                                170
              165
Pro Val Gln Ser Leu Pro Gln Ala Gly Leu Ser Pro Ala Glu 11e Gln
                            185
                                              190
          180
Gln Leu Trp Lys Glu Val Thr Gly Val His Ser Met Glu Asp Asn Gly
                                          205
                        200
lle Lys His Gly Gly Leu Asp Leu Thr Thr Asn Asn Ser Ser Ser Thr
   210
                     215
                                       220
Thr Ser Ser Asn Thr Ser Lys Ala Ser Pro Pro Ile Thr His His Ser
```

Ile Val Asn Gly Gln Ser Ser Val Leu Ser Ala Arg Arg Asp Ser Ser 250 Ser His Glu Glu Thr Gly Ala Ser His Thr Leu Tyr Gly His Gly Val 260 265 270 Cys Lys Trp Pro Gly Cys Glu Ser Ile Cys Glu Asp Phe Gly Gln Phe 280 285 Leu Lys His Leu Asn Asn Glu His Ala Leu Asp Asp Arg Ser Thr Ala 295 300 Gln Cys Arg Val Gln Met Gln Val Val Gln Gln Leu Glu Ile Gln Leu 305 310 315 320 Ser Lys Glu Arg Glu Arg Leu Gln Ala Met Met Thr His Leu His Met 330 325 Arg Pro Ser Glu Pro Lys Pro Ser Pro Lys Pro Lys Leu Pro Gln Thr 350 345 Met Asn Phe Ile Lys Met Gln Met Ser Asp Leu His Leu Leu Met Gln 355 360 365 Leu Ser 370

<210> 4765

<211> 379

<212> PRT

<213> Homo sapiens

<400> 4765

Met Ser Arg Gly Tyr Ser Glu Asn Asn Asn Phe Leu Asn Asn Asn Asn 1 1 5 10 15

Gln Met Val Leu Asp Met Ile Leu Tyr Pro Leu Ile Gly Ile Pro Gln 20 25 30

Thr lle Asn Trp Glu Thr lle Ala Arg Leu Val Pro Gly Leu Thr Pro
35 40 45

Lys Glu Cys Ala Lys Arg Phe Asp Glu Leu Lys Ser Ser Gly Ser Ser 50 55 60

Pro Val Asp Asn Gln Tyr Asn Ser Leu Met Ala Ala Gly Glu Ser Pro 65 70 75 80

Val	Glu	Thr	Leu	Ala	Thr	Tyr	Πle	Lys	Ser	Ser	Leu	Leu	Asp	lle	His
				85					90					95	
Gly	Glu	Phe	Gln	Glu	Thr	Pro	Val	Gly	His	Asp	Ala	Val	Ser	Lys	Thr
			100					105					110		
Gly	Arg	His	Ser	11e	Ala	Ser	Thr	Arg	Asn	Cys	Ser	Ser	Glu	Ser	Glu
		115					120					125			
Asn	Cys	Thr	Thr	His	Asn	Gly	Gly	Glu	Met	Thr	Glu	Glu	Ser	Glu	Gly
	130					135					140				
Pro	Asn	Met	Val	lle	His	Val	Cys	Asp	Glu	Ala	Lys	Asn	Leu	Lys	Glu
145					150					155					160
Лsp	Phe	Thr	Cys	Pro	Arg	Asp	Leu	Leu	He	Ser	Glu	Met	Lys	Tyr	Phe
				165					170					175	
Ala	Glu	Tyr	Leu	Ser	Met	Asp	Ala	Gln	Arg	Trp	Glu	Glu	Va]	Asp	He
			180					185					190		
Ser	Val	His	Cys	Asp	Val	His	lle	Phe	Asn	Trp	Leu	He	Lys	Tyr	lle
		195					200					205			
Lys	Arg	Asn	Thr	Lys	Glu	Asn	Lys	Asp	Cys	Glu	Met	Pro	Thr	Leu	Glu
	210					215					220				
Pro	Gly	Asn	Val	He	Ser	Ile	Leu	Ile	Ser	Ser	Glu	Phe	Leu	Lys	Met
225					230					235					240
Asp	Ser	Leu	Val	Glu	Gln	Cys	lle	Gln	Tyr	Cys	His	Lys	Asn	Met	Asn
				245					250					255	
Ala	He	Val	Ala	Thr	Pro	Cys	Asn	Met	Asn	Cys	He	Asn	Ala	Asn	Leu
			260					265					270		
Leu	Thr	Arg	He	Ala	Asp	Leu	Phe	Ser	His	Asn	Glu	Val	Asp	Asp	Leu
		275					280					285			
Lys	Asp	Lys	Lys	Asp	Lys	Phe	Lys	Ser	Lys	Leu	Phe	Cys	Lys	Lys	He
	290					295					300				
Glu	Arg	Leu	Phe	Asp		Glu	Tyr	Leu	Asn		Asp	Ser	Arg	Ser	
305					310					315					320
Ala	Ala	Thr	Leu	-	Arg	Cys	Cys	Leu	Cys	Lys	Lys	Leu	Leu		Lys
				325					330					335	
Glu	Thr	G] u	_	Arg	lle	Pro	Cys		Pro	Gly	Lys	He		Val	Asp
			340			-		345					350		
Arg	Arg		Asn	He	Val	Tyr		His	He	Arg	Cys		Glu	Asp	Lys
		355					360					365			

11e His Thr Cys Ile Phe Val Tyr Ile Tyr 11e 370 375

<210> 4766

<211> 155

<212> PRT

<213> Homo sapiens

<400> 4766

Met His Lys Tyr Ile Leu Ile Val Lys Asp Leu Asn Pro Thr Glu Pro

1 5 10 15

Pro Gln Cys Val Gly 11e Phe Pro Pro Leu Ser Pro 11e His Ala Ser 20 25 30

Leu Leu Tyr Pro Leu Pro Pro Cys Ser Gly Pro Pro Cys Pro Leu Ser 35 40 45

Ser Cys Trp Val Cys Cys Trp Glu Ser Ala Gly Asp Arg Lys Asp Arg
50 55 60

Gly Glu Arg Gly Gln Gly Thr Asn Phe Pro Ser Pro Pro Leu Gln Ser
65 70 75 80

His Gly Pro Ala Ala Phe Leu Tyr Gln Arg Phe Gln Leu Leu Pro Gly
85 90 95

Gly Val Pro Lys Ser Ser Phe Ser Leu Gly His His Ala Ser Leu Pro 100 105 110

Pro Ser Gln Pro Lys Ala Ser His Gly Ala His Arg Phe Leu Ser Arg 115 120 125

Val Leu Ser 11e Met Phe Leu Cys 11e Leu Ser Met Leu Tyr Asn Trp 130 135 140

<210> 4767

<211> 421

<212> PRT

<213> Homo sapiens

<400	)> 47	767													
Met	Met	Tyr	Arg	Thr	Val	Gly	Phe	G1 y	Thr	Arg	Ser	Arg	Asn	Leu	Lys
1				5					10					15	
Pro	Trp	Met	Пе	Ala	Val	Leu	He	Val	Leu	Ser	Leu	Thr	Val	Val	Ala
			20					25					30		
Val	Thr	He	Gly	Leu	Leu	Val	His	Phe	Leu	Val	Phe	Asp	Gln	Lys	Lys
		35					40					45			
Glu	Tyr	Tyr	His	Gly	Ser	Phe	Lys	lle	Leu	Asp	Pro	Gln	lle	Asn	Asn
	50					55					60				
Asn	Phe	Gly	Gln	Ser	Asn	Thr	Tyr	Gln	Leu	Lys	Asp	Leu	Arg	Glu	Thr
65					70					75					80
Thr	Glu	Asn	Leu	Val	Ser	Gln	Val	Asp	Glu	lle	Phe	He	Asp		Ala
				85					90					95	
Trp	Lys	Lys		Tyr	He	Lys	Asn		Val	Val	Arg	Leu		Pro	Glu
			100					105					110		
Glu	Asp		Val	Lys	Val	Asp		lle	Met	Val	Phe		Phe	Pro	Ser
mı		115					120				0.1	125	7.7		
Thr		GIn	Arg	Ala	Val	Arg	Glu	Lys	Lys	He		Ser	He	Leu	Asn
61	130	7.1			1	135	A 7	1	D	7.7	140	A 7 .	C	C	W - 1
	Lys	116	Arg	Asn		Arg	ATa	Leu	Pro		ASN	Ala	Ser	ser	
145	Vol	Aan	Ala	Mot	150	Can	Con	The	Clu	155	Lou	Tha	Vol	C1n	160
GIII	V 21 1	ASII	на	ме t 165	261	Ser	261	1111	170	GIU	Leu	1111	val	175	MIA
Sor	Cvc	G) v	Lve		Val	Val	Pro	Lou		Val	Acn	Ara	I I a		Sor
361	Cys	Oly	180	nı g	<b>1</b> a 1	141	110	185	71.511	141	ASII	AI S	190	MIG	501
G1 v	Val	He		Pro	Lvs	Ala	Ala		Pro	Trn	Gln	Ala		Leu	Gln
91)		195					200					205			
Tvr	Asp		He	His	GIn	Cys		Ala	Thr	Leu	He		Asn	Thr	Trp
•	210					215	•				220				•
Leu	Val	Thr	Ala	Ala	His	Cys	Phe	Gln	Lys	Tyr	Lys	Asn	Pro	His	Gln
225					230					235					240
Trp	Thr	Val	Ser	Phe	Gly	Thr	Lys	He	Asn	Pro	Pro	Leu	Met	Lys	Arg
				245					250					255	
Asn	Val	Arg	Arg	Phe	He	He	His	Glu	Lys	Tyr	Arg	Ser	Ala	Ala	Arg
			260					265					270		

Glu Tyr Asp Ile Ala Val Val Gln Val Ser Ser Arg Val Thr Phe Ser Asp Asp Ile Arg Arg Ile Cys Leu Pro Glu Ala Ser Ala Ser Phe Gln Pro Asn Leu Thr Val His Ile Thr Gly Phe Gly Ala Leu Tyr Tyr Gly Gly Glu Ser Gln Asn Asp Leu Arg Glu Ala Arg Val Lys Ile Ile Ser Asp Asp Val Cys Lys Gln Pro Gln Val Tyr Gly Asn Asp Ile Lys Pro Gly Met Phe Cys Ala Gly Tyr Met Glu Gly Ile Tyr Asp Ala Cys Arg Gly Asp Ser Gly Gly Pro Leu Val Thr Arg Asp Leu Lys Asp Thr Trp Tyr Leu Ile Gly Ile Val Ser Trp Gly Asp Asn Cys Gly Gln Lys Asp Lys Pro Gly Val Tyr Thr Gln Val Thr Tyr Tyr Arg Asn Trp lle Ala Ser Lys Thr Gly Ile 

<210> 4768

<211> 495

<212> PRT

<213> Homo sapiens

<400> 4768

Met Ala Ala Glu Pro Gln Pro Ser Ser Leu Ser Tyr Arg Thr Thr Gly Ser Thr Tvr Leu His Pro Leu Ser Glu Leu Leu Glv 11e Pro Leu Asp Gln Val Asn Phe Val Val Cys Gln Leu Val Ala Leu Phe Ala Ala Phe Trp Phe Arg Ile Tyr Leu Arg Pro Gly Thr Thr Ser Ser Asp Val Arg 

His	Ala	Val	Ala	Thr	Ile	Phe	Gly	He	Tyr	Phe	Val	lle	Phe	Cys	Phe
65					70					75					80
Gly	Trp	Tyr	Ser	Val	His	Leu	Phe	Val	Leu	Val	Leu	Met	Cys	Tyr	Ala
				85					90					95	
He	Met	Val	Thr	Ala	Ser	Val	Ser	Asn	He	His	Arg	Tyr	Ser	Phe	Phe
			100					105					110		
Val	Ala	Met	Gly	Tyr	Leu	Thr	He	Cys	His	lle	Ser	Arg	He	Tyr	He
		115					120					125			
Phe	His	Tyr	Gly	Ile	Leu	Thr	Thr	Asp	Phe	Ser	Gly	Pro	Leu	Met	He
	130					135					140				
Val	Thr	Gln	Lys	He	Thr	Thr	Leu	Ala	Phe	Gln	Val	His	Asp	Gly	Leu
145					150					155					160
Gly	Arg	Arg	Ala	Glu	Asp	Leu	Ser	Ala	Glu	Gln	His	Arg	Leu	Ala	He
				165					170					175	
Lys	Val	Lys	Pro	Ser	Phe	Leu	Glu		Leu	Ser	Tyr	Leu		Asn	Phe
			180					185					190		
Met	Ser		He	Ala	Gly	Pro		Asn	Asn	Phe	Lys	Asp	Tyr	He	Ala
		195					200					205			
Phe		Glu	Gly	Lys	His		His	Met	Lys	Leu		Glu	Val	Asn	Trp
_	210	_				215			~ *		220				
	Arg	Lys	Gly	Phe	His	Ser	Leu	Pro	Glu		Ser	Pro	Thr	GIy	
225			,	•	230	7.3	/D1	,	17 7	235			,	D)	240
Val	He	His	Lys		Gly	11e	Ihr	Leu		Ser	Leu	Leu	Leu		Leu
Т1	1	ть	1	245	DI	D	V - 1	Tl	250 C	1	V . 1	Λ	Λ	255 T	DL -
ınr	Leu	Inr		ınr	Phe	Pro	vai		Cys	Leu	vai	Asp		rp	Pne
Vol.	Hic	Lvc	260	Sor	Pho	Dro	Alo	265	Lou	Cvc	Tyr	Lou	270 Tur	Val	Val
vai	1115	275	піа	361	Phe	110	280	AIG	Leu	Cys	1 y 1	285	1 / 1	vai	vai
Mot	Gln		Sor	lve	Pro	lve		Tyr	Phe	Ala	Trn		Lau	Ala	Asn
MC t	290	MIG	561	Dyo	110	295	1 ) 1	1 y 1	THE	MIG	300	1111	r, c u	7116	пэр
Ala		Asn	Asn	Ala	Ala		Phe	Glv	Phe	Ser		Val	Asn	Lvs	Asn
305	,	11011		,110	310	01,	1110	01,	1110	315	01;	, , ,	.10,5	13,70	320
	Asn	Phe	Cvs	Trp	Asp	Leu	Leu	Ser	Asn		Asn	lle	Tro	Lvs	
3			- ; -2	325					330				. , [,	335	
Glu	Thr	Ala	Thr		Phe	Lys	Met	Tyr		Glu	Asn	arī	Asn		Gln
			340			,		345				•	350		

Thr Ala Thr Trp Leu Lys Cys Val Cys Tyr Gln Arg Val Pro Trp Tyr Pro Thr Val Leu Thr Phe Ile Leu Ser Ala Leu Trp His Gly Val Tyr Pro Gly Tyr Tyr Phe Thr Phe Leu Thr Gly Ile Leu Val Thr Leu Ala Ala Arg Ala Val Arg Asn Asn Tyr Arg His Tyr Phe Leu Ser Ser Arg Ala Leu Lys Ala Val Tyr Asp Ala Gly Thr Trp Ala Val Thr Gln Leu Ala Val Ser Tyr Thr Val Ala Pro Phe Val Met Leu Ala Val Glu Pro Thr Ile Ser Leu Tyr Lys Ser Met Tyr Phe Tyr Leu His Ile Ile Ser Leu Leu Ile Ile Leu Phe Leu Pro Met Lys Pro Gln Ala His Thr Gln Arg Arg Pro Gln Thr Leu Asn Ser lle Asn Lys Arg Lys Thr Asp 

<210> 4769

<211> 953

<212> PRT

<213> Homo sapiens

<400> 4769

 Met
 Cys
 Asn
 Pro
 Glu
 Glu
 Ala
 Ala
 Leu
 Leu
 Arg
 Leu
 Glu
 Glu
 Val
 Phe

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65					70					75					80
Thr	Gly	Leu	Glu	Ser	Leu	Leu	Leu	Leu	Arg	Gly	Ala	Лѕр	Arg	Val	Leu
				85					90					95	
Gln	Ala	His	He	Glu	Tyr	11e	Glu	Ser	Tyr	Thr	Ser	Cys	Met	Val	Val
			100					105					110		
Gln	Ala	Phe	Gln	Lys	Ala	Ala	Lys	Arg	Arg	Ser	Glu	Tyr	Trp	Arg	Gly
		115					120					125			
Gln	Arg	Lys	Ala	Leu	Arg	Gln	Leu	Leu	Ser	Gly	Val	Ser	Ser	Glu	Gly
	130					135					140				
Ser	Val	Gly	Ala	Ser	Leu	Gly	Gln	Ala	Leu	His	Gln	Pro	Leu	Ala	His
145					150					155					160
His	Val	Gln	Gln	Tyr	Val	Leu	Leu	Leu	Leu	Ser	Pro	Gly	Asp	Thr	He
				165					170					175	
Gly	Glu	His	His	Pro	Thr	Arg	Glu	Leu	Val	Val	Asn	Ala	Val	Thr	Leu
			180					185					190		
Phe	Gly	Asn	Leu	Gln	Ser	Phe	Met	Lys	Gln	Glu	Leu	Asp	Gln	Ala	Val
		195					200					205			
Ala	Thr	Gln	Ala	Leu	Trp	His	Thr	Leu	Arg	Gly	Arg	Leu	Arg	Asp	Val
	210					215					220				
Leu	Cys	Thr	Pro	Ala	His	Arg	Leu	Leu	Gln	Asp	Ser	Gln	Asp	Val	Pro
225					230					235					240
Val	Thr	Val	Ala	Pro	Leu	Arg	Ala	Glu	Arg	Val	Leu	Leu	Phe	Asp	Asp
				245					250					255	
Ala	Leu	Val	Leu	Leu	Gln	Gly	His	Asn	Val	His	Thr	Phe	Asp	Leu	Lys
			260					265					270		
Leu	Val	Trp	Val	Asp	Pro	Gly	Gln	Asp	Gly	Cys	Thr	Phe	His	Leu	Leu
		275					280					285			
Thr		Glu	Glu	Glu	Phe	Ser	Phe	Cys	Ala	Lys	Asp	Ser	Gln	G1 y	Gln
	290					295					300				
	Val	Trp	Gln	Trp		Val	Thr	Trp	Ala		His	Gln	Ala	Leu	
305					310					315					320
Gly	Lys	Lys	Asp		Pro	Val	Leu	G] y		Gly	Leu	Glu	Pro		Gln
				325					330					335	
Pro	Pro	Asp		Arg	Cys	Ala	Glu		Thr	Phe	Gln	Ala	Glu	G1 y	Arg
			340		_			345				~ -	350		
Leu	Cys	GIn	Ala	Thr	Tyr	Glu	Gly	Glu	Trp	Cys	Arg	Gly	Arg	Pro	His

		355					360					365			
Gly	Lys	Gly	Thr	Leu	Lys	Trp	Pro	Asp	Gly	Arg	Asn	His	Val	Gly	Asn
	370					375					380				
Phe	Cys	Gln	Gly	Leu	Glu	His	Gly	Phe	Gly	Пe	Arg	Leu	Leu	Pro	Gln
385					390					395					400
Ala	Ser	Glu	Asp	Lys	Phe	Asp	Cys	Tyr	Lys	Cys	His	Trp	Arg	Glu	Gly
				405					410					415	
Ser	Met	Cys	Gly	Tyr	Gly	Пе	Cys	Glu	Tyr	Ser	Thr	Asp	Gly	Val	Tyr
			420					425					430		
Lys	Gly	Tyr	Phe	Gln	Glu	Gly	Leu	Arg	His	Gly	Phe	Gly	Val	Leu	Glu
		435					440					445			
Ser	Gly	Pro	Gln	Ala	Pro	Gln	Pro	Phe	Arg	Tyr	Thr	Gly	His	Trp	Glu
	450					455					460				
Arg	Gly	Gln	Arg	Ser	Gly	Tyr	Gly	He	Glu	Glu	Asp	Gly	Asp	Arg	Gly
465					470					475					480
Glu	Arg	Tyr	lle	Gly	Met	Trp	Gln	Ala	Gly	Gln	Arg	His	Gly	Pro	Gly
				485					490					495	
Val	Met	Val	Thr	Gln	Ala	Gly	Val	Cys	Tyr	Gln	Gly	Thr	Phe	Gln	Ala
			500					505					510		
	Lys	Thr		G1 y	Pro	G1 y	lle		Leu	Ser	G1u	Asp		Ser	Leu
	Lys	Thr 515		G1y	Pro	Gly	11e 520		Leu	Ser	Glu	Asp 525		Ser	Leu
Asp		515	Val		Pro Thr		520	Leu				525	Asp		
Asp		515	Val				520	Leu				525	Asp		
Asp Tyr	Glu 530	515 Gly	Val Thr	Phe		Arg 535	520 Asp	Leu Leu	Thr	Leu	Met 540	525 Gly	Asp Lys	Gly	Lys
Asp Tyr	Glu 530	515 Gly	Val Thr	Phe	Thr	Arg 535	520 Asp	Leu Leu	Thr	Leu	Met 540	525 Gly	Asp Lys	Gly	Lys
Asp Tyr Val 545	61u 530 Thr	515 Gly Phe	Val Thr Pro	Phe Asn	Thr Gly	Arg 535 Phe	520 Asp Thr	Leu Leu Leu	Thr Glu	Leu Gly 555	Met 540 Ser	525 Gly Phe	Asp Lys Gly	Gly Ser	Lys Gly 560
Asp Tyr Val 545	61u 530 Thr	515 Gly Phe	Val Thr Pro	Phe Asn	Thr Gly 550 His	Arg 535 Phe	520 Asp Thr	Leu Leu Leu	Thr Glu Val	Leu Gly 555	Met 540 Ser	525 Gly Phe	Asp Lys Gly	Gly Ser	Lys Gly 560 Leu
Asp Tyr Val 545 Ala	61u 530 Thr 61y	515 Gly Phe Arg	Val Thr Pro Gly Pro	Phe Asn Leu 565	Thr Gly 550 His	Arg 535 Phe Thr	520 Asp Thr Gln	Leu Leu Gly Lys	Thr Glu Val 570	Leu Gly 555 Leu	Met 540 Ser Asp	525 Gly Phe Thr	Asp Lys Gly Ala	Gly Ser Ala 575	Lys Gly 560 Leu
Asp Tyr Val 545 Ala Pro	Glu 530 Thr Gly Pro	515 Gly Phe Arg Asp	Val Thr Pro Gly Pro 580	Phe Asn Leu 565 Ser	Thr Gly 550 His	Arg 535 Phe Thr	520 Asp Thr Gln Cys	Leu Leu Gly Lys 585	Thr Glu Val 570 Arg	Leu Gly 555 Leu Gln	Met 540 Ser Asp	525 Gly Phe Thr	Asp Lys Gly Ala Val 590	Gly Ser Ala 575 Gly	Lys Gly 560 Leu Ala
Asp Tyr Val 545 Ala Pro	Glu 530 Thr Gly Pro	515 Gly Phe Arg Asp	Val Thr Pro Gly Pro 580	Phe Asn Leu 565 Ser	Thr Gly 550 His	Arg 535 Phe Thr	520 Asp Thr Gln Cys	Leu Leu Gly Lys 585	Thr Glu Val 570 Arg	Leu Gly 555 Leu Gln	Met 540 Ser Asp	525 Gly Phe Thr Gly	Asp Lys Gly Ala Val 590	Gly Ser Ala 575 Gly	Lys Gly 560 Leu Ala
Asp Tyr Val 545 Ala Pro	Glu 530 Thr Gly Pro	515 Gly Phe Arg Asp Val 595	Val Thr Pro Gly Pro 580 Glu	Phe Asn Leu 565 Ser	Thr Gly 550 His Ser	Arg 535 Phe Thr Thr	<ul><li>520</li><li>Asp</li><li>Thr</li><li>Gln</li><li>Cys</li><li>Gln</li><li>600</li></ul>	Leu Leu Gly Lys 585 Gly	Thr Glu Val 570 Arg	Leu Gly 555 Leu Gln Tyr	Met 540 Ser Asp Leu Ser	525 Gly Phe Thr Gly Pro 605	Asp Lys Gly Ala Val 590 Phe	Gly Ser Ala 575 Gly Arg	Lys Gly 560 Leu Ala
Asp Tyr Val 545 Ala Pro	Glu 530 Thr Gly Pro	515 Gly Phe Arg Asp Val 595	Val Thr Pro Gly Pro 580 Glu	Phe Asn Leu 565 Ser	Thr Gly 550 His	Arg 535 Phe Thr Thr	<ul><li>520</li><li>Asp</li><li>Thr</li><li>Gln</li><li>Cys</li><li>Gln</li><li>600</li></ul>	Leu Leu Gly Lys 585 Gly	Thr Glu Val 570 Arg	Leu Gly 555 Leu Gln Tyr	Met 540 Ser Asp Leu Ser Glu	525 Gly Phe Thr Gly Pro 605	Asp Lys Gly Ala Val 590 Phe	Gly Ser Ala 575 Gly Arg	Lys Gly 560 Leu Ala
Asp Tyr Val 545 Ala Pro Phe	Glu 530 Thr Gly Pro Pro	515 Gly Phe Arg Asp Val 595 Cys	Val Thr Pro Gly Pro 580 Glu Ala	Phe Asn Leu 565 Ser Ser	Thr Gly 550 His Ser Arg Cys	Arg 535 Phe Thr Thr Pro 615	520 Asp Thr Gln Cys Gln 600 Arg	Leu Leu Gly Lys 585 Gly Asp	Thr Glu Val 570 Arg Val	Leu Gly 555 Leu Gln Tyr	Met 540 Ser Asp Leu Ser Glu 620	525 Gly Phe Thr Gly Pro 605 Ala	Asp Lys Gly Ala Val 590 Phe	Gly Ser Ala 575 Gly Arg Leu	Lys Gly 560 Leu Ala Asp Gly
Asp Tyr Val 545 Ala Pro Phe Phe	Glu 530 Thr Gly Pro Pro	515 Gly Phe Arg Asp Val 595 Cys	Val Thr Pro Gly Pro 580 Glu Ala	Phe Asn Leu 565 Ser Ser	Thr Gly 550 His Ser Arg Cys	Arg 535 Phe Thr Thr Pro 615	520 Asp Thr Gln Cys Gln 600 Arg	Leu Leu Gly Lys 585 Gly Asp	Thr Glu Val 570 Arg Val	Leu Gly 555 Leu Gln Tyr Gln Arg	Met 540 Ser Asp Leu Ser Glu 620	525 Gly Phe Thr Gly Pro 605 Ala	Asp Lys Gly Ala Val 590 Phe	Gly Ser Ala 575 Gly Arg Leu	Lys Gly 560 Leu Ala Asp Gly Leu
Asp Tyr Val 545 Ala Pro Phe Phe 625	Glu 530 Thr Gly Pro Val 610 Asp	515 Gly Phe Arg Asp Val 595 Cys	Val Thr Pro Gly Pro 580 Glu Ala Gln	Phe Asn Leu 565 Ser Gly Ser	Thr Gly 550 His Ser Arg Cys	Arg 535 Phe Thr Thr Pro 615 Arg	520 Asp Thr Gln Cys Gln 600 Arg	Leu Leu Gly Lys 585 Gly Asp Leu	Thr Glu Val 570 Arg Val Leu Arg	Leu Gly 555 Leu Gln Tyr Gln Arg 635	Met 540 Ser Asp Leu Ser Glu 620 Ser	525 Gly Phe Thr Gly Pro 605 Ala	Asp Lys Gly Ala Val 590 Phe Leu Asp	Gly Ser Ala 575 Gly Arg Leu Tyr	Lys Gly 560 Leu Ala Asp Gly Leu 640

				645					650					655	
Ile	Leu	Glu	Glu	Leu	Leu	Gln	His	Arg	Glu	Pro	Lys	Ala	Leu	Gln	Leu
			660					665					670		
Tyr	Leu	Arg	Lys	Ala	Leu	Ser	Asn	Ser	Leu	His	Pro	Leu	G1 y	Lys	Leu
		675					680					685			
Leu	Arg	Thr	Leu	Met	Leu	Thr	Phe	Gln	Ala	Thr	Tyr	Ala	Gly	Val	Gly
	690					695					700				
Ala	Asn	Lys	His	Leu	Gln	Glu	Leu	Ala	Gln	Glu	Glu	Val	Lys	Gln	His
705					710					715					720
Ala	Gln	Glu	Leu	Trp	Ala	Ala	Tyr	Arg	G1 y	Leu	Leu	Arg	Val	Ala	Leu
				725					730					735	
Glu	Arg	Lys	Gly	Gln	Ala	Leu	Glu	Glu	Asp	Glu	Asp	Thr	Glu	Thr	Arg
			740					745					750		
Asp	Leu	Gln	Val	His	Gly	Leu	Val	Leu	Pro	Leu	Met	Leu	Pro	Ser	Phe
		755					760					765			
Tyr	Ser	Glu	Leu	Phe	Thr	Leu	Tyr	Leu	Leu	Leu	His	Glu	Arg	Glu	Asp
	770					775					780				
Ser	Phe	Tyr	Ser	Gln	Gly	Ile	Ala	Asn	Leu	Ser	Leu	Phe	Pro	Asp	Thr
785					790					795					800
Gln	Leu	Leu	Glu	Phe	Leu	Asp	Val	Gln	Lys	His	Leu	Trp	Pro	Leu	Lys
				805					810					815	
Asp	Leu	Thr		Thr	Ser	Asn	Gln		Tyr	Ser	Leu	Val		Asp	Lys
			820					825					830		
Cys	Phe		Ser	Ala	Thr	G] u		Leu	Gln	Lys	He		Thr	Thr	Val
	_	835		_	_		840					845		6.1	
Asp		Arg	Glu	Lys	Leu	Glu	Val	Leu	GIu	Arg		Tyr	Gly	Glu	He
0.1	850	m	., 1	G		855	,	61		61	860	,	,	D	
	Gly	lhr	Val	Ser		Val	Leu	Gly	Arg		lyr	Lys	Leu	Pro	
865		,	,	n	870	,	11	т	17 1	875	C		A 7	۸	880
Asp	Лsр	Leu	Leu		Leu	Leu	110	lyr		vai	Ser	HIS	Ala		116
C1		1	C1	885	C1	т 1	11.	1	890	Λ	Λ	М. а	M	895	D
GIn	HIS	Leu		Ala	GIU	11e	H1S		116	Arg	Asp	Met		Asp	Pro
Λ	112 -	Tl	900	C1	1	Т	Λ	905	1	Lass	The	۸1.	910	C1	C ~
ASN	піѕ		GIY	оту	Leu	Tyr		rne	Leu	Leu	inr		reu	OIU	ser
Cvc	Tur	915	Hic	11.	Clr	Lvs	920	Acr	Mot	Δ×~	Lov	925 His	Δεσ	Lou	Pro
V.V.S	I V J	UIII	111.5	3.116	OIL	L V >	OTIL	noD	MC L	$\Delta 1 \mathcal{L}$	LUU	111.5	$m \varkappa$	LUU	. J. J. O

930 935 940 Gly His Trp His Ser Arg Glu Leu Trp 945 950

<210> 4770

<211> 331

<212> PRT

<213> Homo sapiens

<400> 4770

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Arg His His Arg 11e His Ser Gly Glu Lys Pro Tyr Val Cys Asn Lys
20 25 30

Cys Gly Glu Ser Phe Arg Ser Ser Ser Asp Leu Ile Lys His His Arg
35 40 45

Val His Thr Gly Glu Lys Pro His Glu Cys Ser Glu Cys Gly Lys Val
50 55 60

Phe Ser Gln Arg Ser His Leu Val Thr His Gln Lys lle His Thr Gly
65 70 75 80

Glu Lys Pro Tyr Gln Cys Thr Glu Cys Glu Lys Ala Phe Arg Arg Arg 85 90 95

Ser Leu Leu lle Gln Arg Arg 1le His Ser Gly Glu Lys Pro Cys 100 105 110

Glu Cys Lys Glu Cys Gly Lys Leu Phe Met Trp His Thr Ala Phe Leu 115 120 125

Lys His Gln Arg Leu His Ala Gly Glu Lys Leu Glu Glu Cys Glu Lys 130 135 140

Thr Phe Ser Lys Asp Glu Glu Leu Arg Gly Glu Gln Lys Ilc His Gln

145 150 155 160

Glu Glu Lys Ala Tyr Trp Cys Asn Gln Cys Gly Arg Ala Phe Gln Gly 165 170 175

Ser Ser Asp Leu Ile Gly His Gln Val Thr His Thr Gly Glu Lys Pro 180 185 190

Tyr Glu Cys Lys Glu Cys Gly Lys Thr Phe Asn Gln Ser Ser Asp Leu

		195					200					205			
Leu	Arg	His	His	Arg	lle	His	Ser	Gly	Glu	Lys	Pro	Tyr	Val	Cys	Asn
	210					215					220				
Lys	Cys	Gly	Lys	Ser	Phe	Arg	Gly	Ser	Ser	Asp	Leu	He	Arg	His	His
225					230					235					240
Arg	Val	His	Thr	Gly	Glu	Lys	Pro	Tyr	Glu	Cys	Pro	Glu	Cys	Trp	Lys
				245					250					255	
Ala	Phe	Ser	Gln	Asn	Ser	His	Leu	Val	Ser	His	Gln	Arg	Ile	His	Thr
			260					265					270		
Arg	Glu	Lys	Pro	Phe	Glu	Cys	Ser	Asn	Cys	Gly	Lys	Ala	Phe	Ser	Gly
		275					280					285			
Trp	Thr	Ala	Phe	Leu	Lys	His	Gln	Lys	Leu	His	He	Gly	Lys	Glu	Phe
	290					295					300				
Glu	Asp	Cys	Lys	Ser	Leu	Gln	Thr	G1 y	Pro	He	Leu	He	Gly	Ser	Arg
305					310					315					320
Asn	Leu	Met	Asn	Ala	Val	Lys	Leu	G1 y	Lýs	Val					
				325					330						

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<211> 1099

<212> PRT

<213> Homo sapiens

<400> 4771

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				85					90					95	
G1	n Asr	ı Ala	Asp	Thr	Asn	Leu	Leu	Phe	Arg	Met	Ser	Gln	Gln	Ala	Ile
			100					105					110		
Ar	g Cys	Thr	Leu	Val	Asn	Cys	Thr	Cys	Glu	Cys	Phe	Gln	Pro	Gly	Lys
		115					120					125			
11	e Ası	Leu	Arg	Thr	Cys	Asp	Gln	Cys	Lys	His	Gly	Trp	Val	Ala	His
	130	)				135					140				
Al	a Lei	ı Asp	Lys	Leu	Ser	Thr	Gln	His	Leu	Tyr	His	Pro	Thr	Gln	Val
14	5				150					155					160
G1	u Ile	e Val	Gln	Ser	Asn	Val	Val	Phe	Asp	Ile	Ser	Ser	Leu	Met	Leu
				165					170					175	
Ту	r Gly	Thr	Gln	Ala	Val	Pro	Val	Arg	Leu	Lys	He	Leu	Leu	Asp	Arg
			180					185					190		
Le	u Phe	e Ser	Val	Leu	Lys	Gln	Glu	Glu	Val	Leu	His	He	Leu	His	Gly
		195					200					205			
Le	u Gly	Trp	Thr	Leu	Arg	Asp	Tyr	Val	Arg	Gly	Tyr	lle	Leu	Gln	Asp
	210	)				215					220				
A1	a Ala	a Gly	Lys	Val	Leu	Asp	Arg	Trp	Ala	Ile	Met	Ser	Arg	Glu	Glu
22	5				230					235					240
G1	u Ile	e Ile	Thr	Leu	Gln	Gln	Phe	Leu	Arg	Phe	Gly	Glu	Thr	Lys	Ser
				245					250					255	
11	e Val	Glu	Leu	Met	Ala	lle	Gln	Glu	Lys	Glu	Gly	Gln	Ala	Val	Ala
			260					265					270		
Va	1 Pro	Ser	Ser	Lys	Thr	Asp	Ser	Asp	11e	Arg	Thr	Phe	He	G1 u	Ser
		275					280					285			
As		n Arg	Thr	Arg	Ser		Ser	Leu	Leu	Ala	His	Leu	Glu	Asn	Ser
	290					295					300				
As	n Pro	Ser	Ser	He		His	Phe	Glu	Asn		Pro	Asn	Ser	Leu	
30					310					315					320
Ph	e Lei	ı Leu	Pro		Gln	Tyr	He	Asn		Val	Ser	Ala	Pro		Leu
				325					330					335	
G1	y Lei	ı Pro		Asn	Gly	Leu	Leu		Glu	G]n	Pro	G1 y		Arg	Leu
	۵.		340			an.	0.1	345				٥.	350		
Ar	g Glu	Pro	Ser	Leu	Ser	Thr		Asn	Glu	Tyr	Asn		Ser	Ser	Glu
		355					360					365			

Ser	Glu 370	Val	Ser	Pro	Thr	Pro 375	Tyr	Lys	Asn	Asp	G1n 380	Thr	Pro	Asn	Arg
Asn	Ala	Leu	Thr	Ser	He	Thr	Asn	Val	Glu	Pro	Lys	Thr	Glu	Pro	Ala
385					390					395					400
Cys	Val	Ser	Pro	He	Gln	Asn	Ser	Ala	Pro	Val	Ser	Asp	Leu	Thr	Lys
				405					410					415	
Thr	Glu	His	Pro	Lys	Ser	Ser	Phe	Arg	Ile	His	Arg	Met	Arg	Arg	Met
			420					425					430		
Gly	Ser	Ala	Ser	Arg	Lys	Gly	Arg	Val	Phe	Cys	Asn	Ala	Cys	Gly	Lys
		435					440					445			
Thr	Phe	Tyr	Asp	Lys	Gly	Thr	Leu	Lys	Ile	His	Tyr	Asn	Ala	Val	His
	450					455					460				
Leu	Lys	He	Lys	His	Arg	Cys	Thr	He	Glu		Cys	Asn	Met	Val	
465					470					475					480
Ser	Ser	Leu	Arg		Arg	Asn	Arg	His		Ala	Asn	Pro	Asn		Arg
				485					490					495	
Leu	His	Met		Met	Leu	Arg	Asn		Arg	Asp	Lys	Asp		He	Arg
	mı		500			TD1	Б	505	7.1	4.7	C	TI.	510	C	
Ala	Thr	Ser 515	Gly	Ala	Ala	Thr	520	Val	He	Ala	Ser	525	Lys	Ser	Asn
Leu	Ala	Leu	Thr	Ser	Pro	Gly	Arg	Pro	Pro	Met	Gly	Phe	Thr	Thr	Pro
	530					535					540				
Pro	Leu	Asp	Pro	Val	Leu	Gln	Asn	Pro	Leu	Pro	Ser	Gln	Leu	Val	Phe
545					550					555					560
Ser	Gly	Leu	Lys	Thr	Val	Gln	Pro	Val	Pro	Pro	Phe	Tyr	Arg	Ser	Leu
				565					570					575	
Leu	Thr	Pro	Gly	Glu	Met	Val	Ser	Pro	Pro	Thr	Ser	Leu	Pro	Thr	Ser
			580					585					590		
Pro	lle	He	Pro	Thr	Ser	Gly		He	Glu	Gln	His		Pro	Pro	Pro
		595					600					605			
Ser		Pro	Val	Val	Pro		Val	Met	Met	Ala		His	Glu	Pro	Ser
	610					615		_			620	_			
	Asp	Leu	Ala	Pro		Lys	Lys	Pro	Arg		Ser	Ser	Met	Pro	
625		0.3		63	630			m,		635	0.3	DI			640
Lys	He	Glu	Lys		He	He	Asp	Thr		Asp	Glu	Phe	Asp		Glu
				645					650					655	

Asp	Asp	Asp	Pro	Asn	Asp	Gly	Gly		Val	Val	Asn	Asp		Ser	His
			660					665					670		
Asp	Asn	His	Cys	His	Ser	Gln	Glu	Glu	Met	Ser	Pro	Gly	Met	Ser	Val
		675					680					685			
Lys	Asp	Phe	Ser	Lys	His	Asn	Arg	Thr	Arg	Cys	He	Ser	Arg	Thr	Glu
	690					695					700				
Пе	Arg	Arg	Ala	Asp	Ser	Met	Thr	Ser	Glu	Asp	G1n	Glu	Pro	Glu	Arg
705					710					715					720
Asp	Tyr	Glu	Asn	Glu	Ser	Glu	Ser	Ser	Glu	Pro	Lys	Leu	Gly	Glu	Glu
				725					730					735	
Ser	Met	Glu	Gly	Asp	Glu	His	He	His	Ser	Glu	Val	Ser	Glu	Lys	Val
			740					745					750		
Leu	Met	Asn	Ser	Glu	Arg	Pro	Asp	Glu	Asn	His	Ser	Glu	Pro	Ser	His
		755					760					765			
Gln	Asp	Val	He	Lys	Val	Lys	Glu	Glu	Phe	Thr	Asp	Pro	Thr	Tyr	Asp
	770					775					780				
Met	Phe	Tyr	Met	Ser	Gln	Tyr	Gly	Leu	Tyr	Asn	Gly	Gly	Gly	Ala	Ser
785					790					795					800
Met	Ala	Ala	Leu	His	Glu	Ser	Phe	Thr	Ser	Ser	Leu	Asn	Tyr	Gly	Ser
				805					810					815	
Pro	Gln	Lys	Phe	Ser	Pro	Glu	Gly	Asp	Leu	Cys	Ser	Ser	Pro	Asp	Pro
			820					825					830		
Lys	He	Cys	Tyr	Val	Cys	Lys	Lys	Ser	Phe	Lys	Ser	Ser	Tyr	Ser	Val
		835					840					845			
Lys	Leu	His	Tyr	Arg	Asn	Val	His	Leu	Lys	Glu	Met	His	Val	Cys	Thr
	850					855					860				
Val	Ala	Gly	Cys	Asn	Ala	Ala	Phe	Pro	Ser	Arg	Arg	Ser	Arg	Asp	Arg
865					870					875					880
His	Ser	Ala	Asn	He	Asn	Leu	His	Arg	Lys	Leu	Leu	Thr	Lys	Glu	Leu
				885					890					895	
Asp	Asp	Met	Gly	Leu	Asp	Ser	Ser	Gln	Pro	Ser	Leu	Ser	Lys	Asp	Leu
			900					905					910		
Arg	Asp	Glu	Phe	Leu	Val	Lys	lle	Tyr	Gly	Ala	Gln	His	Pro	Met	Gly
		915					920					925			
Leu	Asp	Val	Arg	Glu	Asp	Ala	Ser	Ser	Pro	Ala	Gly	Thr	Glu	Asp	Ser
	930					935					940				

His Leu Asn Gly Tyr Gly Arg Gly Met Ala Glu Asp Tyr Met Val Leu Asp Leu Ser Thr Thr Ser Ser Leu Gln Ser Ser Ser Ser Ile His Ser Ser Arg Glu Ser Asp Ala Gly Ser Asp Glu Gly Ile Leu Leu Asp Asp lle Asp Gly Ala Ser Asp Ser Gly Glu Ser Ala His Lys Ala Glu Ala Pro Ala Leu Pro Gly Ser Leu Gly Ala Glu Val Ser Gly Ser Leu Met Phe Ser Ser Leu Ser Gly Ser Asn Gly Gly Ile Met Cys Asn Ile Cys His Lys Met Tyr Ser Asn Lys Gly Thr Leu Arg Val His Tyr Lys Thr Val His Leu Arg Glu Met His Lys Cys Lys Val Pro Gly Cys Asn Met Met Phe Ser Ser Val Arg Ser Arg Asn Arg His Ser Gln Asn Pro Asn Leu His Lys Asn Ile Pro Phe Thr Ser Val Asp 

<210> 4772

<211> 247

<212> PRT

<213> Homo sapiens

<400> 4772

Ala Ala Ala Ala Leu Ala Leu Leu Thr Gly Gly Glu Met Leu Leu Asn Val Ala Leu Val Ala Leu Val Leu Leu Gly Ala Tyr Arg Leu Trp Val Arg Trp Gly Arg Gly Leu Gly Ala Gly Ala Gly Ala Gly Glu Glu Ser Pro Ala Thr Ser Leu Pro Arg Met Lys Lys Arg Asp Phe Ser Leu Glu Gln Leu Arg Gln Tyr Asp Gly Ser Arg Asn Pro Arg Ile Leu Leu Ala Val Asn Gly Lys Val Phe Asp Val Thr Lys Gly Ser Lys Phe Tyr Gly Pro Ala Gly Pro Tyr Gly lle Phe Ala Gly Arg Asp Ala Ser Arg Gly Leu Ala Thr Phe Cys Leu Asp Lys Asp Ala Leu Arg Asp Glu Tyr Asp Asp Leu Ser Asp Leu Asn Ala Val Gln Met Glu Ser Val Arg Glu Trp Glu Met Gln Phe Lys Glu Lys Tyr Asp Tyr Val Gly Arg Leu Leu Lys Pro Gly Glu Glu Pro Ser Glu Tyr Thr Asp Glu Glu Asp Thr Lys Asp His Asn Lys Gln Asp 

<210> 4773

<211> 705

<212> PRT

<213> Homo sapiens

<400> 4773

Met Lys Gln Glu Leu Asp Gln Ala Val Ala Thr Gln Ala Leu Trp His

1 10 15

Thr Leu Arg Gly Arg Leu Arg Asp Val Leu Cys Thr Pro Ala His Arg

Leu	Leu		Asp	Ser	Gln	Asp		Pro	Val	Thr	Val		Pro	Leu	Arg
	0.1	35	., .			DI	40		A 3	1	17.1	45	I	C1	C1
Ala		Arg	Val	Leu	Leu	Phe	Asp	Asp	Ala	Leu		Leu	Leu	GIN	GIY
	50	17 1		TI	DI	55	1	1	1	V - 1	60 T	V = 1	Λ ~	Dag	C1
	Asn	val	HIS	Ihr		Asp	Leu	Lys	Leu		тр	vai	ASP	110	
65		C.1	C	TI	70	11.7	1	1	Ті	75 D	C1	C1	C1	Dlag	80
61n	Asp	Gly	Cys	1hr 85	rne	His	Leu	Leu	1nr 90	Pro	Giu	Giu	Gju	95	ser
Phe	Cvs	Ala	Lvs		Ser	G1n	Glv	Gln		Val	Trp	Gln	Trp		Val
1110	0,0		100			• • • • • • • • • • • • • • • • • • • •	,	105					110	Ĭ	
Thr	Trp	Ala		His	Gln	Ala	Leu		Glv	Lvs	Lys	Asp	Phe	Pro	Val
	1	115					120		-	•	•	125			
Leu	Gly	Ala	G]y	Leu	Glu	Pro		Gln	Pro	Pro	Asp	Cys	Arg	Cys	Ala
	130					135					140				
Glu	Tyr	Thr	Phe	Gln	Ala	Glu	Gly	Arg	Leu	Cys	Gln	Ala	Thr	Tyr	Glu
145					150					155					160
Gly	Glu	Trp	Cys	Arg	Gly	Arg	Pro	His	Gly	Lys	Gly	Thr	Leu	Lys	Trp
				165					170					175	
Pro	Asp	Gly	Arg	Asn	His	Val	Gly	Asn	Phe	Cys	Gln	Gly	Leu	Glu	His
			180					185					190		
Gly	Phe	Gly	He	Arg	Leu	Leu	Pro	Gln	Ala	Ser	Glu	Asp	Lys	Phe	Asp
		195					200					205			
Cys	Tyr	Lys	Cys	His	Trp	Arg	Glu	Gly	Ser	Met	Cys	Gly	Tyr	Gly	He
	210					215					220				
Cys	Glu	Tyr	Ser	Thr	Asp	G] u	Val	Tyr	Lys	Gly	Tyr	Phe	Gln	Glu	Gly
225					230					235					240
Leu	Arg	His	Gly	Phe	G1 y	Va1	Leu	G] u	Ser	Gly	Pro	Gln	Ala	Pro	Gln
				245					250					255	
Pro	Phe	Arg	Tyr	Thr	Gly	His	Trp	Glu	Arg	Gly	Gln	Arg	Ser	Gly	Tyr
			260					265					270		
G1 y	lle	Glu	Glu	Asp	Gly	Asp	Arg	Gly	Glu	Arg	Tyr	He	Gly	Met	Trp
		275					280					285			
Gln	Ala	Gly	Gln	Arg	His	Gly	Pro	Gly	Val	Met	Va]	Thr	Gln	Ala	Gly
	290					295					300				
		Tyr	Gln	G1y		Phe	Gln	Ala	Asp		Thr	Val	Gly	Pro	
305					310					315					320

He	Leu	Leu	Ser	Glu	Asp	Asp	Ser	Leu	Tyr	Glu	Gly	Thr	Phe	Thr	Arg
				325					330					335	
Asp	Leu	Thr	Leu	Met	Gly	Lys	Gly	Lys	Val	Thr	Phe	Pro	Asn	Gly	Phe
			340					345					350		
Thr	Leu	Glu	Gly	Ser	Phe	Gly	Ser	Gly	Ala	Gly	Arg	Gly	Leu	His	Thr
		355					360					365			
Gln	Gly	Val	Leu	Asp	Thr	Ala	Ala	Leu	Pro	Pro	Asp	Pro	Ser	Ser	Thr
	370					375					380				
Cys	Lys	Arg	Gln	Leu	Gly	Val	Gly	Ala	Phe	Pro	Val	Glu	Ser	Arg	Trp
385					390					395					400
Gln	Gly	Val	Tyr	Ser	Pro	Phe	Arg	Asp	Phe	Val	Cys	Ala	G1 y	Cys	Pro
				405					410					415	
Arg	Asp	Leu	Gln	Glu	Ala	Leu	Leu	Gly	Phe	Asp	Val	Gln	Ser	Ser	Arg
			420					425					430		•
Glu	Leu	Arg	Arg	Ser	G1n	Asp	Tyr	Leu	Ser	Cys	61u	Arg	Thr	His	Pro
		435					440					445			
Glu	Asp	Ser	Val	Gly	Ser	Met	Glu	Asp	He	Leu	Glu	Glu	Leu	Leu	Gln
	450					455					460				
His	Arg	Glu	Pro	Lys	Ala	Leu	Gln	Leu	Tyr	Leu	Arg	Lys	Ala	Leu	
465					470					475					480
Asn	Ser	Leu	His	Pro	Leu	Gly	Lys	Leu		Arg	Thr	Leu	Met	Leu	Thr
				485					490					495	
Phe	Gln	Ala	Thr	Tyr	Ala	Gly	Val		Ala	Asn	Lys	His		Gln	Gly
			500					505					510		
Leu	Ala		G1u	Glu	Val	Lys		His	Ala	Gln	Glu		Trp	Ala	Ala
		515					520					525			_
Tyr		Gly	Leu	Leu	Arg		Ala	Leu	Glu	Arg		Gly	Gln	Ala	Leu
	530					535	m				540	., .		0.1	
	Glu	Asp	Glu	Asp		Glu	Thr	Arg	Asp		GIn	Val	His	Gly	
545					550			121		555	0.1		D.	Tr.I	560
Va]	Leu	Pro	Leu		Leu	Pro	Ser	Phe			Glu	Leu	Phe	Thr	Leu
				565					570		_		0.1	575	
Tyr	Leu	Leu			Glu	Arg	Glu		Ser	Phe	lyr	Ser		Gly	116
			580		ъ.	Б		585	67			6.1	590		4
Ala	Asn		Ser	Leu	Phe	Pro			GIn	Leu	Leu			Leu	Asp
		595					600					605			

Val Gln Lys His Leu Trp Pro Leu Lys Asp Leu Thr Leu Thr Ser Asn Gln Arg Tyr Ser Leu Val Arg Asp Lys Cys Phe Leu Ser Ala Thr Glu Cys Leu Gln Lys Ile Met Thr Thr Val Asp Pro Arg Glu Lys Leu Glu Val Leu Glu Arg Thr Tyr Gly Glu Ile Glu Gly Thr Val Ser Arg Val Leu Gly Arg Glu Tyr Lys Arg Pro Trp Thr Thr Cys Cys His Phe Ser Ser Thr Trp Cys Arg Ala Pro Glu Phe Ser Thr Trp Glu Pro Arg Ser Thr <210> 4774 <211> 907 <212> PRT <213> Homo sapiens <400> 4774 Met Gln Tyr Gln Cys Lys Lys Cys Asn Val Val Phe Pro Arg Ile Phe Asp Leu Ile Thr His Gln Lys Lys Gln Cys Tyr Lys Asp Glu Asp Asp Asp Ala Gln Asp Glu Ser Gln Thr Glu Asp Ser Met Asp Ala Thr Asp Gln Val Val Tyr Lys His Cys Thr Val Ser Gly Gln Thr Asp Ala Ala Lys Asn Ala Ala Ala Pro Ala Ala Ser Ser Gly Ser Gly Thr Ser Thr Pro Leu IIe Pro Ser Pro Lys Pro Glu Pro Glu Lys Thr Ser Pro Lys Pro Glu Tyr Pro Ala Glu Lys Pro Lys Gln Ser Asp Pro Ser Pro Pro

Ser	Gln	Gly	Thr	Lys	Pro	Ala	Leu	Pro	Leu	Ala	Ser	Thr	Ser	Ser	Asp
		115					120					125			
Pro	Pro	Gln	Ala	Ser	Thr	Ala	Gln	Pro	G1n	Pro	Gln	Pro	Gln	Pro	Pro
	130					135					140				
Lys	Gln	Pro	Gln	Leu	He	Gly	Arg	Pro	Pro	Ser	Ala	Ser	Gln	Thr	Pro
145					150					155					160
Val	Pro	Ser	Ser	Pro	Leu	Gln	He	Ser	Met	Thr	Ser	Leu	Gln	Asn	Ser
				165					170					175	
Leu	Pro	Pro	G]n	Leu	Leu	Gln	Tyr	Gln	Cys	Asp	Gln	Cys	Thr	Val	Ala
			180					185					190		
Phe	Pro	Thr	Leu	Glu	Leu	Trp	Gln	Glu	His	Gln	His	Val	His	Phe	Leu
		195					200					205			
Ala	Ala	Gln	Asn	Gln	Phe	Leu	His	Ser	Pro	Phe	Leu	Glu	Arg	Pro	Met
	210					215					220				
Asp	Met	Pro	Tyr	Met	He	Phe	Asp	Pro	Asn	Asn	Pro	Leu	Met	Thr	G1 y
225					230					235					240
Gln	Leu	Leu	Gly	Ser	Ser	Leu	Thr	Gln	Met	Pro	Pro	Gln	Ala	Ser	Ser
				245					250					255	
Ser	His	Thr	Thr	Ala	Pro	Thr	Thr	Val	Ala	Ala	Ser	Leu	Lys	Arg	Lys
			260					265					270		
Leu	Asp	Asp	Lys	Glu	Asp	Asn	Asn	Cys	Ser	Glu	Lys	Glu	G1 y	Gly	Asn
		275					280					285			
Ser	Gly	Glu	Asp	Gln	His	Arg	Asp	Lys	Arg	Leu	Arg	Thr	Thr	Пе	Thr
	290					295					300				
Pro	Glu	Gln	Leu	Glu	lle	Leu	Tyr	Glu	Lys	Tyr	Leu	Leu	Asp	Ser	Asn
305					310					315					320
Pro	Thr	Arg	Lys		Leu	Asp	His	lle		Arg	Glu	Val	G1 y	Leu	Lys
				325					330					335	
Lys	Arg	Val		Gln	Val	Trp	Phe	G1n	Asn	Thr	Arg	Ala	Arg	Glu	Arg
			340					345					350		
Lys	Gly		Phe	Arg	Ala	Val		Pro	Ala	Gln	Ser		Lys	Arg	Cys
		355					360					365			
Pro		Cys	Arg	Ala	Leu		Lys	Ala	Lys	Ser		Leu	Glu	Ser	His
	370					375					380				

lle Arg Ser Arg His Trp Asn Glu Gly Lys Gln Ala Gly Tyr Ser Leu

385					390					395					400
Pro	Pro	Ser	Pro	Leu	Ile	Ser	Thr	Glu	Asp	Gly	Gly	Glu	Ser	Pro	G1n
				405					410					415	
Lys	Tyr	He	Tyr	Phe	Asp	Tyr	Pro	Ser	Leu	Pro	Leu	Thr	Lys	11e	Asp
			420					425					430		
Leu	Ser	Ser	Glu	Asn	Glu	Leu	Ala	Ser	Thr	Val	Ser	Thr	Pro	Val	Ser
		435					440					445			
Lys	Thr	Ala	Glu	Leu	Ser	Pro	Lys	Asn	Leu	Leu	Ser	Pro	Ser	Ser	Phe
	450					455					460				
Lys	Ala	Glu	Cys	Ser	Glu	Asp	Val	Glu	Asn	Leu	Asn	Ala	Pro	Pro	Ala
465					470					475					480
Glu	Ala	Gly	Tyr	Asp	Gln	Asn	Lys	Thr	Asp	Phe	Asp	Glu	Thr	Ser	Ser
				485					490					495	
He	Asn	Thr	Ala	He	Ser	Asp	Ala	Thr	Thr	Gly	Asp	Glu	Gly	Așn	Thr
			500					505					510		
Glu	Met	Glu	Ser	Thr	Thr	Gly	Ser	Ser	Gly	Asp	Val	Lys	Pro	Ala	Leu
		515					520					525			
Ser	Pro	Lys	Glu	Pro	Lys	Thr	Leu	Asp	Thr	Leu	Pro	Lys	Pro	Ala	Thr
	530					535					540				
Thr	Pro	Thr	Thr	Glu	Val	Cys	Asp	Asp	Lys	Phe	Leu	Phe	Ser	Leu	Thr
545					550					555					560
Ser	Pro	Ser	He	His	Phe	Asn	Asp	Lys	Asp	Gly	Asp	His	Asp	Gln	Ser
				565					570					575	
Phe	Tyr	lle		Asp	Asp	Pro	Asp		Asn	Ala	Asp	Arg		Glu	Thr
			580					585					590		
Ser	Ser		Ala	Asp	Pro	Ser		Pro	Asn	Pro	Phe	Gly	Ser	Ser	Asn
_		595	_	_	_		600					605			
Pro		Lys	Ser	Lys	Ser		Asp	Arg	Pro	Gly		Lys	Arg	Phe	Arg
	610					615	_	_			620		0	D.	
	GIn	Met	Ser	Asn		GIn	Leu	Lys	Val		Lys	Ala	Cys	Phe	
625			m)		630		0.1	0.1		635			0.1		640
Asp	Tyr	Arg	Thr		Thr	Met	GIn	Glu		Glu	Met	Leu	GIY		6Ju
7.3	0.7	,	Б	645		17 1		C.	650	т	D)	C1	٨	655	Δ.
He	ыу	Leu		Lys	Arg	val	val		val	тр	rne	G1n		Ala	Arg
A 7	,	C1	660	1.	101	ī	7.7	665	7.3	C1	1.	Pro	670	М 4	7 7
ALO	1 1/10	1 - [ 11	1 37.0	1 37 6	rno	1 1/2	110	1100	110	1 - 1 37	1 17 C	ヒコンハ	MAG	MIGIT	110

		675					680					685			
Asn	Gln	Gly	Gly	Thr	Glu	Gly	Thr	Lys	Pro	Glu	Cys	Thr	Leu	Cys	G1 y
	690					695					700				
Val	Lys	Tyr	Ser	Ala	Arg	Leu	Ser	11e	Arg	Asp	His	Пe	Phe	Ser	Lys
705					710					715					720
Gln	His	lle	Ser	Lys	Val	Arg	Glu	Thr	Val	Gly	Ser	Gln	Leu	Asp	Arg
				725					730					735	
Glu	Lys	Asp	Tyr	Leu	Ala	Pro	Thr	Thr	Val	Arg	Gln	Leu	Met	Ala	Gln
			740					745					750		
Gln	Glu	Leu	Asp	Arg	Ile	Lys	Lys	Ala	Ser	Asp	Val	Leu	Gly	Leu	Thr
		755					760					765			
Val	Gln	Gln	Pro	Gly	Met	Met	Asp	Ser	Ser	Ser	Leu	His	Gly	He	Ser
	770					775					780				
Leu	Pro	Thr	Ala	Tyr	Pro	Gly	Leu	Pro	Gly	Leu	Pro	Pro	Val	Leu	Leu
785					790					795					800
Pro	Gly	Met	Asn	Gly	Pro	Ser	Ser	Leu	Pro	Gly	Phe	Pro	G1n	Asn	Ser
				805					810					815	
Asn	Thr	Leu	Thr	Pro	Pro	Gly	Ala	Gly	Met	Leu	Gly	Phe	Pro	Thr	Ser
			820					825					830		
Ala	Thr	Ser	Ser	Pro	Ala	Leu	Ser	Leu	Ser	Ser	Ala	Pro	Thr	Lys	Pro
		835					840					845			
Leu	Leu	Gln	Thr	Pro											
	850					855					860				
Ser	Ser	Ser	Leu	Ser	Gly	Gln	Gln	Thr	Glu	Gln	Gln	Asn	Lys	Glu	Ser
865					870					875					880
Glu	Lys	Lys	Gln	Thr	Lys	Pro	Asn	Lys	Val	Lys	Lys	He	Lys	Glu	Glu
				885					890					895	
Glu	Leu	Glu	Ala	Thr	Lys	Pro	Glu	Lys	His	Pro					
			900					905							

<211> 412

<212> PRT

<213> Homo sapiens

<400	0> 47	775													
Met	Thr	Phe	Thr	Phe	Gln	Ser	Glu	Asp	Leu	Lys	Arg	Asp	Cys	Gly	Lys
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Lys	Met	Ser	His	Gln	His	Val	Phe	Ser	Leu	Ala	Met	Glu	Glu	Asp	Val
			20					25					30		
Lys	Thr	Ala	Asp	Thr	Lys	Lys	Ala	Ser	Arg	lle	Leu	Asp	His	Glu	Lys
		35					40					45			
Glu	Asn	Thr	Arg	Ser	lle	Cys	Leu	Leu	Glu	Gln	Lys	Arg	Lys	Val	Val
	50					55					60				
Ser	Ser	Asn	He	Asp	Val	Pro	Pro	Ala	Arg	Lys	Ser	Ser	Glu	Glu	Leu
65					70					75					80
Asp	Met	Asp	Lys	Val	Thr	Ala	Ala	Met	Val	Leu	Thr	Ser	Leu	Ser	Thr
				85					90					95	
Ser	Pro	Leu	Val	Arg	Ser	Pro	Pro	Val	Arg	Pro	Asn	Glu	Ser	Leu	Ser
			100					105					110		
Gly	Ser	Trp	Lys	Glu	Gly	Gly	Cys	Val	Pro	Ser	Ser	Thr	Ser	Ser	Ser
		115					120					125			
Gly	Tyr	Trp	Ser	Trp	Ser	Ala	Pro	Ser	Asp	Gln	Ser	Asn	Pro	Ser	Thr
	130					135					140				
Pro	Ser	Pro	Pro	Leu	Ser	Ala	Asp	Ser	Phe	Lys	Pro	Phe	Arg	Ser	Pro
145					150					155					160
Ala	Gln	Pro	Asp		Gly	Ile	Asp	Glu	Ala	Glu	Ala	Ser	Asn		Leu
				165					170		_			175	
Phe	Asp	Glu		He	Pro	Arg	Lys		Lys	Asn	Ser	Met		Val	Met
DI		6	180	Tr.			0	185	,			C	190		A 3
Phe	Lys		Leu	Irp	Lys	Asn		Gly	Lys	Val	Leu		Ihr	Ala	Ala
C1	7.7	195	1.	11.7	11	۸.	200 The	11	11.7	ř	C1.	205	171	C)	Δ.
оту		GIN	Lys	nls	116	Arg	ınr	116	nls	Leu		Arg	val	ыу	ASP
S = 1	210	T	Sor	۸ ۵۳	C1	215	C1	100	Dha	Т	220 Tur	<b>T</b> ト~	C1	71.	1
	Asp	ryr	ser	nsp		Glu	010	ASP	гие		ryr	1111	oru	116	
225	A 05	The	Λ α=	Sar	230 Vo.1	Ala	105	C1	1.50	235	San	Low	A 1 ~	Dna	240
ren	ASH	ınr	asp		val	ита	ASP	GIY		ser	ser	Leu	ита		val
S	D	Sor	615	245 Sor	Law	Λ1~	Sar	Dno	250	Th∽	Dha	Dno	11~	255 Pro	Λ
ser	110	261.	260	261.	Leu	Ala	Set.	265	110	1111	тпе	110	270	110	nsp
Ser	Ser	Ara		Glu	Thr	Pro	Cvc		Lve	Thr	Glu	Thr		Leu	Met
261	0.61	un 8	1 1 1 1	010	7 1 1 7	110	Uy S	nid	ri $s$ $s$	1111	Olu	1 1 1 1 1	Lys	LCU	MC C

Thr Pro Leu Ser Arg Ser Ala Pro Thr Thr Leu Tyr Leu Val His Thr Asp His Ala Tyr Gln Ala Thr Pro Pro Val Thr Ile Pro Gly Ser Ala Lys Phe Thr Pro Asn Gly Ser Ser Phe Ser Ile Ser Trp Gln Ser Pro Pro Val Thr Phe Thr Gly Ile Pro Val Ser Pro Thr His His Pro Val Gly Thr Gly Glu Gln Arg Gln His Ala His Thr Val Leu Ser Ser Pro Pro Arg Gly Thr Val Ser Leu Arg Lys Pro Arg Gly Glu Gly Lys Lys Cys Arg Lys Val Tyr Gly Met Glu Asn Arg Asp Met Trp Cys Thr Ala Cys Arg Trp Lys Lys Ala Cys Gln Arg Phe Leu Asp 

<210> 4776

<211> 314

<212> PRT

<213> Homo sapiens

<400> 4776

 Met Thr Gly Ser Asn Ser His Ille Thr Ille Leu Thr Leu Asn Val Asn

 1
 5
 10
 15
 15

 Gly Leu Asn Ala Pro Ille Lys Arg His Arg Leu Ala Asn Trp Ille Lys
 20
 25
 30
 30

 Ser Gln Asp Pro Ser Val Cys Us Ille Gln Glu Thr His Leu Thr Cys
 45

 Arg Asp Thr His Arg Leu Lys Ille Lys Gly Trp Arg Lys Ille Tyr Gln
 55
 60

 Ala Ser Gly Lys Gln Lys Lys Ala Gly Val Ala Ille Leu Val Ser Asp
 65
 70
 75
 80

Lys Thr Asp Phe Lys Pro Thr Lys Ile Lys Arg Asp Lys Glu Gly His

				85					90					95	
Tyr	Thr	Met	Val	Lys	Gly	Ser	He	Gln	Gln	Glu	Glu	Leu	Thr	Ile	Leu
			100					105					110		
Asn	He	Tyr	Ala	Pro	Asn	Thr	Gly	Ala	Pro	Arg	Phe	He	Lys	G1n	Val
		115					120					125			
Leu	Ser	Asp	Val	Gln	Arg	Asp	Leu	Asp	Ser	His	Thr	Leu	Ile	Met	Gly
	130					135					140				
Asp	Phe	Asn	Thr	Pro	Leu	Ser	Thr	Leu	Asp	Arg	Ser	Thr	Arg	Gln	Lys
145					150					155					160
Val	Asn	Lys	His	Thr	Gln	Glu	Phe	Asn	Ser	Ala	Leu	His	Gln	Ala	Asp
				165					170					175	
Leu	Ile	Asp	He	Tyr	Lys	Thr	Leu	His	Pro	Lys	Ser	Thr	Glu	Tyr	Thr
			180					185					190		
Phe	Phe	Ser	Ala	Pro	His	His	Thr	Tyr	Ser	Lys	He	Asp	His	Ile	Phe
		195					200					205			
Gly	Ser	Lys	Ala	Leu	Phe	Ser	Lys	Cys	Lys	Arg	Thr	Glu	Ile	He	Thr
	210					215					220				
Asn	Cys	Leu	Ser	Glu	His	Ser	Ala	lle	Lys	Leu	Glu	Leu	Arg	Ile	Lys
225					230					235					240
Asn	Leu	Thr	Gln	Asn	Arg	Ser	Thr	Thr	Trp	Lys	Leu	Asn	Asn	Leu	Leu
				245					250					255	
Leu	Asn	Asp	Tyr	Trp	Val	His	Asn	Glu	Met	Lys	Ala	Glu	Ile	Lys	Met
			260					265					270		
Phe	Phe	Glu	Thr	Asn	Glu	Asn	Lys	Asp	Thr	Thr	Tyr	G1n	Asn	Leu	Trp
		275					280					285			
Asp	Ala	Phe	Lys	Ala	Val	Cys	Thr	Gly	Lys	Phe	lle	Ala	Leu	Asn	Ala
	290					295					300				
His	Lys	Arg	Lys	Lys	Glu	Arg	Lys	Lys	Glu						
305					310										

<211> 264

<212> PRT

<213> Homo sapiens

<400	)> 47	777													
Met	Thr	G1y	Ser	Asn	Ser	His	He	Thr	Ile	Leu	Thr	Leu	Asn	Val	Asn
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Gly	Leu	Asn	Thr	Pro	lle	Lys	Arg	His	Arg	Leu	Ala	Ser	Trp	lle	Lys
			20					25					30		
Ser	Gln	Asp	Pro	Ser	Val	Cys	Cys	Ile	Gln	Glu	Thr	His	Leu	He	Cys
		35					40					45			
Lys	Asp	Ala	Tyr	Arg	Leu	Lys	Ile	Lys	Gly	Trp	Arg	Lys	Ile	Tyr	Gln
	50					55					60				
Ala	Asn	Arg	Lys	Gln	Lys	Lys	Ala	Gly	Val	Ala	He	Leu	Val	Ser	Asp
65					70					75					80
Lys	Ser	Asp	Phe	Lys	Pro	Thr	Lys	lle	Lys	Arg	Asp	Lys	Lys	Gly	His
				85					90					95	
Tyr	He	Met	Val	Lys	Gly	Ser	Met	Gln	G1n	Glu	Glu	Leu	Thr	He	Leu
			100					105					110		
Asn	Ile	Tyr	Ala	Pro	Asn	Thr	Gly	Ala	Pro	Arg	Phe	Ile	Asn	Glu	Va]
		115					120					125			
Leu	Arg	Asp	Pro	Gln	Arg	Asn	Leu	Asp	Ser	His	Thr	lle	Ile	Met	Gly
	130					135					140				
Asp	Phe	Asn	Thr	Pro	Leu	Ser	lle	Phe	Asp	Arg	Ser	Thr	Arg	Gln	Lys
145					150					155					160
Val	Asn	Lys	Asp	Thr	Gln	Asp	Leu	Asn	Leu	Thr	Leu	Gln	Gln	Ala	Asp
				165					170					175	
Leu	Arg	Asp	He	Tyr	Arg	Thr	Leu	His	Pro	Lys	Ser	Thr	Glu	Tyr	Thi
			180					185					190		
Phe	Phe	Ser	Ala	Leu	His	His	Thr	Tyr	Ser	Lys	Thr	Asp	His	He	Leu
		195					200					205			
Gly	Ser	Lys	Ala	Leu	Leu	Ser	Lys	Cys	Lys	Arg	Thr	Glu	He	Thr	Thi
	210					215					220				
Asn	Cys	Leu	Ser	Asp	His	Ser	Ala	He	Lys	Leu	Glu	Leu	Arg	lle	Lys
225					230					235					240
Lys	Leu	Thr	Gln	Tyr	His	He	Ser	Thr	Trp	Lys	Leu	Asn	Asn	Leu	Leu
				245					250					255	
Leu	Asn	Asp	Tyr	Trp	Val	Asn	Asn								

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<212> PRT
<213> Homo sapiens
<400> 4778
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                                      10
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Ser Met Ser Glu Ala Asn Leu Ile Asp Met Glu Ala Gly Lys Val Ser
Lys Ser Cys Asn Ile Thr Glu Cys Gln Asp Pro Asp Leu Leu His Asn
        35
                             40
                                                  45
Trp Pro Asp Ala Phe Thr Leu Arg Gly Asn Asn Ala Ser Lys Val Ala
    50
                         55
                                              60
Asn Pro Phe Trp Asn Gln Leu Ser Ala Ser Asn Pro Phe Leu Asp Asp
                     70
                                         75
Ile Thr Gln Leu Arg Asn Asn Arg Lys Arg Asn Asn Ile Ser Ile Leu
                                      90
                 85
Lys Glu Asp Pro Phe Leu Phe Cys Arg Glu Ile Glu Asn Gly Asn Ser
                                105
Phe Asp Ser Ser Gly Asp Glu Leu Asp Val His Gln Leu Leu Arg Gln
        115
                            120
                                                 125
Thr Ser Ser Arg Asn Ser Gly Arg Ser Lys Ser Val Ser Glu Leu Leu
    130
                        135
                                             140
Asp Ile Leu Asp Asp Thr Ala His Ala His Gln Ser Ile His Asn Ser
                    150
                                        155
Asp Gln Ile Leu Leu His Asp Leu Glu Trp Pro Lys Asn Asp Arg Glu
                165
Ala Tyr Lys Met Ala Trp Leu Ser Gln Arg Gln Leu Ala Arg Ser Cys
                                 185
Leu Asp Leu Asn Thr Ile Ser Gln Ser Pro Gly Trp Ala Gln Thr Gln
                            200
                                                 205
        195
Leu Ala Glu Val Thr lle Ala Cys Lys Val Asn His Gln Gly Gly Ser
   210
                                             220
                        215
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Val	Gln	Leu	Pro	Glu	Ser	Asp	He	Thr	Val	His	Val	Pro	Gln	Gly	His
225					230					235					240
Val	Ala	Val	Gly	Glu	Phe	Gln	Glu	Va]	Ser	Leu	Arg	Ala	Phe	Leu	Asp
				245					250					255	
Pro	Pro	His	Met	Leu	Asn	His	Asn	Leu	Ser	Cys	Thr	Val	Ser	Pro	Leu
			260					265					270		
Leu	Glu	Ile	Met	Leu	Gly	Asn	Leu	Asn	Thr	Met	Glu	Ala	Leu	Leu	Leu
		275					280					285			
Glu	Met	Lys	Ile	Gly	Ala	Glu	Val	Arg	Lys	Asp	Pro	Phe	Ser	Gln	Val
	290					295					300				
Met	Thr	Glu	Met	Val	Cys	Leu	His	Ser	Leu	Gly	Lys	Glu	G1 y	Pro	Phe
305					310					315					320
Lys	Val	Leu	Ser	Asn	Cys	Tyr	lle	Tyr	Lys	Asp	Thr	lle	Gln	Val	Lys
				325					330					335	
Leu	He	Asp	Leu	Ser	Gln	Val	Met	Tyr	Leu	Val	Val	Ala	Ala	Gln	Ala
			340					345					350		
Lys	Ala	Leu	Pro	Ser	Pro	Ala	Ala	Thr	He	Trp	Asp	Tyr	Ile	His	Lys
		355					360					365			
Thr	Thr	Ser	He	Gly	lle	Tyr	Gly	Pro	Lys	Tyr	He	His	Pro	Asn	Phe
	370					375					380				
Thr	Val	Val	Leu	Thr	Val	Cys	Gly	His	Asn	Tyr	Met	Pro	Gly	GIn	Leu
385					390					395					400
Thr	He	Ser	Asp	lle	Lys	Lys	Gly	Gly	Lys	Asn	He	Ser	Pro		Val
				405					410					415	
Phe	Gln	Leu		Gly	Lys	Gln	Ser	Phe	Leu	Leu	Asp	Lys		Gln	Asp
			420					425					430	_	
Leu	Ser		Ser	He	Phe	Ser	-	Asp	Pro	Asp	Phe			Lys	Thr
		435					440				_	445		0.1	0.7
G]u		Glu	Arg	Lys	Glu		Lys	G]n	Lys	GIn			Ala	Gly	Glu
	450					455					460			0.1	
	Val	His	GIn	GIn		Leu	Phe	Ser	Leu		Glu	His	Arg	Glu	
465		D)		D.	470	., .	6.1	., .	0.1	475	Б		61	61	480 D
His	Leu	Phe	Asp		Cys	Val	61n	Val		Pro	Pro	Asn	Gly		Pro
12. 2	A 7	C 1	151	485	7.1	TI	TI	D	490	D	TI	n	٨	495	1
Val	Ala	61n		Ser	11e	thr	Ihr	Pro	Asp	Pro	ıhr	Pro		Leu	Lys
			500					505					510		

Arg	Leu	Leu	Asn	Leu	Pro	Gly	Tyr	Leu	Gln	Lys	Lys	Glu	Glu	lle	Lys
		515					520					525			
Ser	Ala	Pro	Leu	Ser	Pro	Lys	Пе	Leu	Val	Lys	Tyr	Pro	Thr	Phe	Gln
	530					535					540				
Asp	Lys	Thr	Leu	Asn	Phe	Ser	Asn	Tyr	Gly	Val	Thr	Leu	Lys	Ala	Val
545					550					555					560
Leu	Arg	Gln	Ser	Lys	lle	Asp	Tyr	Phe	Leu	Glu	Tyr	Phe	Lys	Gly	Asp
				565					570					575	
Thr	He	Ala	Leu	Leu	Gly	Glu	Gly	Lys	Val	Lys	Ala	Ile	Gly	Gln	Ser
			580					585					590		
Lys	Val	Lys	Glu	Trp	Tyr	Val	Gly	Val	Leu	Arg	Gly	Lys	Ile	Gly	Leu
		595					600					605			
Val	His	Cys	Lys	Asn	Val	Lys	Val	He	Ser	Lys	Glu	Gln	Val	Met	Phe
	610					615					620				
Met	Ser	Asp	Ser	Val	Phe	Thr	Thr	Arg	Asn	Leu	Leu	Glu	Gln	He	Val
625					630					635					640
Leu	Pro	Leu	Lys	Lys	Leu	Thr	Tyr	lle	Tyr	Ser	Val	Val	Leu	Thr	Leu
				645					650					655	
Val	Ser	G] u	Lys	Val	Tyr	Asp	Trp	Lys	Val	Leu	Ala	Asp	Val	Leu	Gly
			660					665					670		
Tyr	Ser		Leu	Ser	Leu	Glu		Phe	Asp	Gln	He		Ala	Asp	Lys
		675					680					685			
Glu		Glu	Lys	Val	Ser	Tyr	Val	lle	Lys	Lys		Lys	Glu	Asp	Cys
	690					695					700				
	Thr	Glu	Arg	Asn		Arg	Lys	Phe	Leu		Glu	Leu	He	Val	
705					710	۵,			., .	715			7.1	0.1	720
Leu	Leu	Lys	Met		Cys	Gln	Glu	Leu		Ala	Arg	Leu	He		GIu
4.3		37 1	,	725	C	. 1	17 1		730	61	,	C1	T	735	C1
Ala	Ala	val		inr	Ser	Ala	val		Leu	61 y	Lys	GIY		Arg	Gju
1		C1	740	1	V . 1	A	1	745	1	C1	C1	М. 4	750	41.	т
Leu	Ala		Lys	Leu	vai	Arg		inr	Lys	GIN	GIN		GIU	Ата	ıyr
C1	110	755	uia	Λ	C1.	Asn	760	C1v	Aan	Vo.1	A 1 a	765	C1	Mot	Mot
Giu	770	110	1115	A1 g	Gry	775	1111	Gry	nsp	vai	780	vai	01u	Met	met
Tro		Pro	Ala	Tyr	Aen	Phe	Leu	Tur	Thr	Trn		Ala	Hic	Tvr	GIv
785	3	.10	,,,,,,	.,.	790	. 110	200	. , 1		795	JC1	11.1 G			800

Asn Asn Tyr Thr Asp Val Leu Gln Asp Leu Gln Ser Ala Leu Asp Arg Met Lys Asn Pro Val Thr Lys His Trp Arg Glu Leu Thr Gly Val Leu Ile Leu Val Asn Ser Leu Glu Val Leu Arg Val Thr Ala Phe Ser Thr Ser Glu Glu Val 

<210> 4779 <211> 865 <212> PRT

<213> Homo sapiens

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Asp Leu Ser Gln Glu Ala 11e Leu Glu Lys Leu Thr Glu Asn Gly Leu 

Pro Lys Pro Ala Thr Lys Asn Ala Thr Arg Thr Lys Ala Ile Ser Glu

Trp	Asp	Ser	Arg	Met	Glu	Gly	Leu	Trp	Lys	Trp	Asn	Asp	Arg	Πe	Leu
				165					170					175	
Arg	Leu	Gln	Asn	Asn	Gln	Glu	Asn	His	Leu	Ser	Gln	Arg	Ile	lle	Pro
			180					185					190		
Leu	Lys	Lys	Thr	Pro	Thr	Ser	Gln	Arg	Gly	Phe	Arg	Phe	Glu	Ser	Пe
		195					200					205			
Leu	Ile	Pro	Glu	Pro	Gly	He	Ala	Thr	Glu	Glu	Leu	His	Ser	Arg	Cys
	210					215					220				
Gln	Thr	Gln	Glu	Glu	Asn	Phe	Thr	Glu	Asn	Leu	Asn	Leu	Ile	Thr	Asp
225					230					235					240
Thr	His	Leu	Gly	Lys	Ile	He	Cys	Lys	Glu	Met	Lys	Gly	Ser	Lys	Ala
				245					250					255	
He	Arg	Gln	Thr	Ser	Glu	Leu	Thr	Leu	Gly	Lys	Lys	Ser	Asn	Asn	Lys
			260					265					270		
Glu	Lys	Pro	Tyr	Lys	Cys	Ser	Thr	Cys	Glu	Lys	Ala	Phe	His	Tyr	Arg
		275					280					285			
Ser	Leu	Leu	He	Gln	His	Gln	Arg	Thr	His	Thr	Lys	Glu	Lys	Pro	Tyr
	290					295					300				
Glu	Cys	Asn	Glu	Cys	Gly	Lys	Thr	Phe	Ser	Gln	Pro	Ser	Tyr	Leu	Ser
305					310					315					320
Gln	His	Lys	Lys	He	His	Thr	Gly	Glu	Lys	Pro	Tyr	Lys	Cys	Asn	Glu
				325					330					335	
Cys	Gly	Lys	Ala	Phe	He	Ala	Ser	Ser	Ser	Leu	Met	Val	His	Gln	Arg
			340					345					350		
lle	His	Thr	Lys	Glu	Lys	Pro	Tyr	Gln	Cys	Asn	Val	Cys	Gly	Lys	Ser
		355					360					365			
Phe	Ser	Gln	Cys	Ala	Arg	Leu	Asn	Gln	His	Gln	Arg	He	Gln	Thr	Gly
	370					375					380				
Glu	Lys	Pro	Tyr	Lys	Cys	Ser	6] u	Cys	Gly	Lys	Ala	Phe	Ser	Asp	Lys
385					390					395					400
Ser	Lys	Leu	Ala	Arg	His	Gln	Glu	Thr	His	Asn	Gly	Glu	Lys	Pro	Tyr
				405					410					415	
Lys	Cys	Asp	Asp	Cys	Gly	Lys	Ala	Phe	Arg	Asn	Lys	Ser	Tyr	Leu	Ser
			420					425					430		
Val	His	Gln	Lys	Thr	His	Thr	Glu	Glu	Lys	Pro	Tyr	Gln	Cys	Asn	Glu
		435					440					445			

Cys	Gly	Lys	Ser	Phe	Lys	Asn	Thr	Thr	Ile	Phe	Asn	Val	His	Gln	Arg
	450					455					460				
He	His	Thr	Gly	Glu	Lys	Pro	Phe	Arg	Cys	Asn	Glu	Cys	Gly	Lys	Ala
465					470					475					480
Tyr	Arg	Ser	Asn	Ser	Ser	Leu	Пе	Val	His	He	Arg	Thr	His	Thr	Gly
				485					490					495	
Glu	Lys	Pro	Tyr	Glu	Cys	Asn	Glu	Cys	Gly	Lys	Ala	Phe	Asn	Arg	He
			500					505					510		
Ala	Asn	Phe	Thr	Glu	His	Gln	Arg	He	His	Thr	Gly	Glu	Lys	Pro	Tyr
		515					520					525			
Lys	Cys	Asn	Glu	Cys	Gly	Lys	Ala	Phe	He	Asn	Tyr	Ser	Cys	Leu	Thr
•	530					535					540				
Val	His	His	Arg	Met	His	Thr	Gły	Glu	Lys	Pro	Tyr	Lys	Cys	Thr	Glu
545					550					555					560
Cys	G1 y	Lys	Ala	Phe	Met	Arg	Ser	Ser	Ser	Leu	He	Пе	His	Gln	Cys
				565					570					575	
He	His	Thr	Glu	Glu	Lys	Pro	Tyr	Leu	Cys	Asn	Glu	Cys	Gly	Glu	Ser
			580					585					590		
Phe	Arg		Lys	Ser	His	Leu	Thr	Val	His	Gln	Arg	He	His	Thr	Gly
		595					600					605			
Glu		Pro	Tyr	Lys	Cys	Thr	Asp	Cys	Glu	Arg		Phe	Thr	Lys	Met
	610					615					620				
	Asn	Leu	Lys	Glu		G1n	Lys	He	His		Gly	Val	Lys	Pro	
625					630					635					640
Lys	Cys	Tyr	Asp		Gly	Lys	Ser	Phe		Thr	Lys	Ser	Tyr		He
				645					650	_				655	
Val	His	GIn		Thr	His	Thr	G1 y		Lys	Pro	Tyr	Lys		Asn	Glu
	0.1		660	FS1	<b></b>		m	665		_			670		
Cys	Glu		Ala	Phe	Thr	Asn		Ser	GIn	Leu	Thr		His	Gln	Arg
		675	a i	0.1	,	D	680	,			0.1	685	0.1		., .
Arg		Ihr	GIy	Glu	Lys	Pro	iyr	Lys	Cys	Asn		Cys	Gly	Lys	Val
DL.	690	C	Λ	C	C1	695	Λ.	ті	11.	C.I	700	TI	11.	TI	C1
	ınr	ser	ASN	ser		Phe	Asn	mr	н1\$		Arg	Inr	H1S	ınr	
705	Luc	Dva	Dha	Luc	710	A	Λ	C+-=	C1	715	A 1 -	DL -	C	C1	720
oiu	LyS	1.1.0	rne		cys	Asn	Asp	cys		Lys	Αта	rne	ser		wet
				725					730					735	

Val His Val Thr Glu His Gln Lys Ile His Ser Gly Glu Lys Pro Tyr Lys Cys Asp Val Cys Gly Lys Ala Phe Arg Arg Gly Ser Tyr Leu Thr Val His Trp Arg Thr His Thr Gly Glu Lys Pro Tyr Thr Cys Lys Glu Cys Gly Lys Gly Cys Ile Thr Leu Ser Gln Leu Thr Leu His Gln Arg Ile His Thr Gly Glu Arg Pro Tyr Lys Cys Glu Glu Cys Gly Lys Ala Phe Arg Thr Asn Ser Asp Phe Thr Val His Leu Arg Met His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Ala Phe Arg Ser Ser Ser Ser Leu Thr Val His Gln Arg Ile His Gln Arg Glu Thr Gln Leu He <210> 4780 <211> 547 <212> PRT <213> Homo sapiens <400> 4780 Met Leu Glu Gly Arg Gln Thr Pro Ala Ser Thr Leu Glu Gln Asp Ala Thr Asp Tyr Arg Leu Arg Ser Leu Arg Lys Leu Leu Ala Gln Pro Arg 

Glu Gly Leu Leu Ala Pro Phe Ser Lys Arg Asn Ser Thr Ala Ser Phe

Pro Gly Arg Thr Ser His Ile Pro Val Gln Gln Pro Glu Lys Arg Lys

Gln Lys Pro Ser Pro Glu Pro Ser Gln Asp Ser Pro His Ser Asp Lys

Trp	Pro	Pro	Gly	His 85	Pro	Val	Lys	Asn	Leu 90	Pro	Gln	Met	Arg	Gly 95	Pro
Arg	Pro	Arg	Pro	Ala	Gly	Asp	Ser	Pro	Arg	Lys	Thr	Gln	Trp	Leu	Asn
			100					105					110		
Gln	Val	Glu	Ser	Tyr	11e	Λla	Glu	Gln	Arg	Arg	Gly	Asp	Arg	Met	Arg
		115					120					125			
Pro	G1n	Ala	Pro	Gly	Arg	Gly	Trp	His	Gly	Glu	Glu	Glu	Val	Val	Ala
	130					135					140				
Ala	Ala	Gly	Gln	Glu	Gly	Gln	Val	Glu	Gly	Glu	Glu	Glu	Gly	Glu	Glu
145					150					155					160
Glu	Glu	Glu	Glu	Glu	Asp	Met	Ser	Glu	Val	Phe	Glu	Tyr	Va]	Pro	Val
				165					170					175	
Phe	Asp	Pro	Val	Val	Asn	Trp	Asp	Gln	Thr	Phe	Ser	Ala	Arg	Asn	Leu
			180					185					190		
Asp	Phe	Gln	Ala	Leu	Arg	Thr	Asp	Trp	lle	Asp	Leu	Ser	Cys	Asn	Thr
		195					200					205			
Ser		Asn	Leu	Leu	Leu	Pro	Glu	Gln	Glu	Ala	Leu	Glu	Val	Thr	Arg
	210					215					220				
	Phe	Leu	Lys	Lys		Asn	Gln	Arg	Ser		Gly	Arg	Tyr	Gln	
225					230	0.1			0.1	235	0.1			61	240
GIn	Arg	He	Val		Val	Glu	Lys	Arg		Asp	GIn	Leu	Arg		Gly
	т			245		61	1	,	250	C1.	61	C1		255	V . 1
Arg	lyr	Leu		GIu	Leu	61u	Leu		Glu	GIn	ыу	Gln		val	val
A	1	C	260	т	V = 1	C	A 1 a	265	C1	Tues	Cl.	C1	270	Aan	Duc
Arg	Leu	275	Glu	1 91	vai	261	280	AI g	GTy	111	GIII	Gly 285	116	лѕр	110
Ala	Glv		Glu	Glu	Val	Glu		Ara	Asn	Leu	Gln	61 y	Len	Val	Trn
MIG	290	Oly	Olu	GIU	101	295	Mid	Mg	изп	LCu	300	Ory	1,00	701	1115
Asp		His	Asn	Arg	Arg		Gln	Val	Leu	Asn		Arg	Ala	Gln	Glu
305				0	310	6			1,500	315		0			320
	Lys	Leu	Cys	Trp		Gln	Gly	Phe	Ser		Ser	His	Arg	Ala	
	•		•	325			·		330	-			_	335	
Val	His	Phe	Val	Val	Pro	Val	Lys	Asn	Gln	Ala	Arg	Trp	Val	Gln	Gln
			340					345					350		
Phe	Ile	Lys	Asp	Met	Glu	Asn	Leu	Phe	Gln	Val	Thr	Gly	Asp	Pro	His
		355					360					365			

Phe Asn Ile Val lle Thr Asp Tyr Ser Ser Glu Asp Met Asp Val Glu Met Ala Leu Lys Arg Ser Lys Leu Arg Ser Tyr Gln Tyr Val Lys Leu Ser Gly Asn Phe Glu Arg Ser Ala Gly Leu Gln Ala Gly 11e Asp Leu Val Lys Asp Pro His Ser lle Ile Phe Leu Cys Asp Leu His Ile His Phe Pro Ala Gly Val Ile Asp Ala Ile Arg Lys His Cys Val Glu Gly Lys Met Ala Phe Ala Pro Met Val Met Arg Leu His Cys Gly Ala Thr Pro Gln Trp Pro Glu Gly Tyr Trp Glu Val Asn Gly Phe Gly Leu Leu Gly Ile Tyr Lys Ser Asp Leu Asp Arg Ile Gly Gly Met Asn Thr Lys Glu Phe Arg Asp Arg Trp Gly Gly Glu Asp Trp Glu Leu Leu Asp Arg lle Leu Gln Ala Gly Leu Asp Val Glu Arg Leu Ser Leu Arg Asn Phe Phe His His Phe His Ser Lys Arg Gly Met Trp Ser Arg Arg Gln Met Lys Thr Leu <210> 4781 <211> 443 <212> PRT <213> Homo sapiens

Met Ser Gln Arg Gln Tyr Pro Glu Cys Tyr Leu Ala Pro Asn Gly Cys

1 5 10 15

Leu Val Ser Asn Cys Gly Val Asn Lys Met Ser Asn Glu Glu Leu Val

<400> 4781

20 25 30

Gly	Gln	Asn	His	Gly	Met	Glu	Gly	Glu	Ala	Cys	Thr	Gly	Gly	Asp	Val
		35					40					45			
Thr	Phe 50	Ser	Asp	Val	Ala	11e 55	Asp	Phe	Ser	His	G1u 60	Glu	Trp	Ala	Cys
Leu	Asp	Ser	Ala	Gln	Arg	Asp	Leu	Tyr	Lys	Asp	Val	Met	Val	Gln	Asn
65					70					75					80
Tyr	Glu	Asn	Leu	Val	Ser	Val	Gly	Leu	Ser	Val	Thr	Lys	Pro	Tyr	Val
				85					90					95	
Ile	Met	Leu	Leu	Glu	Asp	G1y	Lys	Glu	Pro	Trp	Met	Met	Glu	Lys	Lys
			100					105					110		
Leu	Ser	Lys	Asp	Trp	Glu	Ser	Arg	Trp	Glu	Asn	Lys	Glu	Leu	Ser	Thr
		115					120					125			
Lys	Lys	Asp	He	Tyr	Asp	Glu	Asp	Ser	Pro	Gln	Pro	Val	Thr	Met	Glu
	130					135					140				
Lys	Val	Val	Lys	Gln	Ser	Tyr	Glu	Phe	Ser		Ser	Asn	Lys	Asn	Leu
145					150					155					160
Glu	Tyr	Thr	Glu		Asp	Thr	Phe	Arg		Thr	Phe	His	Ser		Ser
	_		0.3	165	0.1				170	0.1	0.1		C.	175	
Thr	Leu	Ser		Pro	GIn	Asn	Asn		Ala	Glu	Gly	Asn		HIS	Lys
т.	Δ	11.	180	1	1	۸	I	185	1	Luc	C = 70	V o 1	190	Luc	Com
lyr	Asp		Leu	Lys	Lys	Asn		ser	Lys	Lys	Sel.		116	Lys	Se1.
C1	A 12 cr	195	Aon	C1	C1.,	Lvo	200	Lou	Lou	Aan	Sor	205	Lvc	Sor	Clv
GIU	210	116	ASII	СТУ	GIY	Lys 215	LyS	Leu	Leu	ASII	220	лы	Lys	361	ОТУ
Ala		Phe	Asn	Gln	Ser	Lys	Ser	Len	Thr	Leu		Gln	Thr	Cvs	Asn
225	ma	1 110	ASII	Om	230	Lys	561	Leu	1113	235	110	0111	1111	0,0	240
	Glu	Lvs	He	Tvr		Cys	Ser	Glu	Cvs		Lvs	Ala	Phe	Glv	
6	0.14	•2,0	110	245		4,2			250		, -			255	_, -
G1n	Ser	Ile	Leu	Asn	Arg	His	Trp	Arg	lle	His	Thr	G1 y	Glu	Lys	Pro
			260					265					270		
Tyr	Glu	Cys	Arg	Glu	Cys	G1 y	Lys	Thr	Phe	Ser	His	G1 y	Ser	Ser	Leu
		275					280					285			
Thr	Arg	His	Gln	Ile	Ser	His	Ser	Gly	Glu	Lys	Pro	Tyr	Lys	Cys	11e
	290					295					300				
C1u	Cve	Glv	Lve	Δla	Pho	Sor	Иie	Glv	Sor	Sor	Leu	Thr	Asn	His	G1n

305					310					315					320
	Thr	His	Thr	Gly		Lys	Pro	Tyr	Glu	Cys	Met	Asn	Cys	Gly	
				325					330					335	
Ser	Phe	Ser	Arg	Val	Ser	Leu	Leu	He	Gln	His	Leu	Arg	lle	His	Thr
			340					345					350		
Gln	Glu	Lys	Arg	Tyr	Glu	Cys	Arg	Ile	Cys	Gly	Lys	Ala	Phe	Ile	His
		355					360					365			
Ser	Ser	Ser	Leu	lle	His	His	Gln	Lys	Ser	His	Thr	Gly	Glu	Lys	Pro
	370					375					380				
Tyr	Glu	Cys	Arg	Glu	Cys	Gly	Lys	Ala	Phe	Cys	Cys	Ser	Ser	His	Leu
385					390					395					400
Thr	Gln	His	Gln	Arg	He	His	Ser	Met	Lys	Lys	Lys	Tyr	Glu	Cys	Asn
				405					410					415	
Lys	Cys	Leu	Lys	Val	Phe	Ser	Ser	Phe	Ser	Phe	Leu	Val	Gln	His	Gln
			420					425					430		
Ser	lle	His	Thr	Glu	Glu	Lys	Pro	Phe	Glu	Val					
		435					440								

<211> 649

<212> PRT

<213> Homo sapiens

<400> 4782

Met Met Trp Gln Cys His Leu Ser Ala Gln Asp Tyr Arg Tyr Tyr Pro 1 5 5 10 15 15 15 Val Asp Gly Tyr Ser Leu Leu Lys Arg Phe Pro Leu His Pro Leu Thr 20 25 10 15 30 Gly Pro Arg Cys Pro Val Gln Thr Val Gly Gln Trp Leu Glu Ser Ile 35 45 45 45

Gly Leu Pro Gln Tyr Glu Asn His Leu Met Ala Asn Gly Phe Asp Asn 50 55 60

Val Gln Phe Met Gly Ser Asn Val Met Glu Asp Gln Asp Leu Leu Glu 65 70 75 80

Ile	Gly	lle	Leu	Asn	Ser	G1 y	His	Arg	Gln	Arg	lle	Leu	Gln	Ala	Ile
				85					90					95	
Gln	Leu	Leu	Pro	Lys	Met	Arg	Pro	He	Gly	His	Asp	Gly	Tyr	His	Pro
			100					105					110		
Thr	Ser	Val	Ala	Glu	Trp	Leu	Asp	Ser	He	Glu	Leu	Gly	Asp	Tyr	Thr
		115					120					125			
Lys	Ala	Phe	Leu	He	Asn	Gly	Tyr	Thr	Ser	Met	Asp	Leu	Leu	Lys	Lys
	130					135					140				
Ile	Trp	Glu	Val	Glu	Leu	Ile	Asn	Glu	Trp	Asn	He	Thr	Lys	Leu	Ser
145					150					155					160
Ile	Glu	Tyr	Asp	Ser	Glu	Pro	Phe	Gly	Lys	Glu	Arg	Asp	Ala	Ala	Ile
				165					170					175	
Lys	Lys	Leu	Ala	Thr	Glu	Ala	Gly	Val	Glu	Val	He	Val	Arg	He	Ser
			180					185					190		
His	Thr	Leu	Tyr	Asp	Leu	Asp	Lys	Ile	Ile	Glu	Leu	Asn	Gly	Gly	Gln
		195					200					205			
Pro	Pro	Leu	Thr	Tyr	Lys	Arg	Phe	Gln	Thr	Leu	He	Ser	Lys	Met	Glu
	210					215					220				
Pro	Leu	Glu	Ile	Pro	Val	Glu	Thr	Ile	Thr	Ser	Glu	Val	Ile	Glu	Lys
225					230					235					240
Cys	Thr	Thr	Pro	Leu	Ser	Asp	Asp	His	Asp	Glu	Lys	Tyr	Gly	Val	Pro
				245					250					255	
Ser	Leu	Glu	Glu	Leu	Gly	Phe	Asp	Thr	Asp	Gly	Leu	Ser	Ser	Ala	Val
			260					265					270		
Trp	Pro	Gly	Gly	Glu	Thr	Glu	Ala	Leu	Thr	Arg	Leu	Glu	Arg	His	Leu
		275					280					285			
Glu	Arg	Lys	Ala	Trp	Val	Ala	Asn	Phe	Glu	Arg	Pro	Arg	Met	Asn	Ala
	290					295					300				
Asn	Ser	Leu	Leu	Ala	Ser	Pro	Thr	Gly	Leu	Ser	Pro	Tyr	Leu	Arg	Phe
305					310					315					320
Gly	Cys	Leu	Ser	Cys	Arg	Leu	Phe	Tyr	Phe	Lys	Leu	Thr	Asp	Leu	Tyr
				325					330					335	
Lys	Lys	Val		Lys	Asn	Ser	Ser		Pro	Leu	Ser	Leu		G]y	G1n
			340					345					350		
Leu	Leu	Trp	Arg	Glu	Phe	Phe	Tyr	Thr	Ala	Ala	Thr		Asn	Pro	Arg
		355					360					365			

Phe	Asp 370	Lys	Met	Glu	Gly	Asn 375	Pro	Ile	Cys	Val	G1n 380	lle	Pro	Trp	Asp
Lvs		Pro	Glu	Ala	Leu	Ala	Lvs	Trp	Ala	Glu		Arg	Thr	Glv	Phe
385	.,,,,,				390		-,-	1-		395		Ü		•	400
	Tro	He	Asp	Ala		Met	Thr	Gln	Leu		Gln	Glu	Gly	Trp	He
	1-			405					410	J			•	415	
His	His	Leu	Ala		His	Ala	Val	Ala	Cys	Phe	Leu	Thr	Arg	Gly	Asp
			420					425					430		
Leu	Trp	Ile	Ser	Trp	Glu	Glu	Gly	Met	Lys	Val	Phe	Glu	Glu	Leu	Leu
		435					440					445			
Leu	Asp	Ala	Asp	Trp	Ser	Ile	Asn	Ala	Gly	Ser	Trp	Met	Trp	Leu	Ser
	450					455					460				
Cys	Ser	Ser	Phe	Phe	Gln	Gln	Phe	Phe	His	Cys	Tyr	Cys	Pro	Val	G1 y
465					470					475					480
Phe	Gly	Arg	Arg	Thr	Asp	Pro	Asn	G1 y	Asp	Tyr	lle	Arg	Arg	Tyr	Leu
				485					490					495	
Pro	Val	Leu	Arg	Gly	Phe	Pro	Ala	Lys	Tyr	11e	Tyr	Asp	Pro	Trp	Asn
			500					505					510		
Ala	Pro	Glu	Gly	Ile	Gln	Lys	Val	Ala	Lys	Cys	Leu	He	G1 y	Val	Asn
		515					520					525			
Tyr	Pro	Lys	Pro	Met	Val	Asn	His	Ala	Glu	Ala	Ser	Arg	Leu	Asn	He
	530					535					540				
Glu	Arg	Met	Lys	Gln		Tyr	G1n	G1n	Leu		Arg	Tyr	Arg	Gly	
545					550		_		_	555				0.1	560
G1 y	Leu	Leu	Ala		Val	Pro	Ser	Asn		Asn	Gly	Asn	GIy		Phe
	0.1	<i>m</i>		565	0.1			Б	570	0	C	C	C	575	C
Met	Gly	Tyr		Ala	Glu	Asn	He		GIy	Cys	Ser	Ser		Gly	Ser
6	C	C1	580	С.	C1 -	11.	1	585	т	41.	11.5	C1	590	C	C1
Cys	Ser		GIY	ser	GIŸ	He	600	HIS	туг	Ата	ms	605	ASP	ser	GIN
Cln	Thr	595	Lou	Lou	Lve	Gln		Δνα	Sor	Sor	Mot		Thr	Glv	ا ما
0111	610	1115	Leu	Ļeu	Lys	615		nı g	261	261	620		1111	Oly	LCu
Ser		Glv	lve	Arσ	Pro	Ser		Glu	Glu	Asn			Ser	He	Glv
625	Oly	Эту	Lys	,11 S	630	JU1	9.11	31 U	51 u	635		9411	501	110	640
	Lvs	Va1	Gln	Arg		Ser	Thr	Asn							- 20
	, -			645											

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<211> 337
<212> PRT
<213> Homo sapiens
<400> 4783
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 1
                  5
                                     10
Ala Pro Ser Cys Leu Ile Ala Met Ala Leu Lys Asn Ser Lys Thr Gly
                                 25
Ser Leu Pro Val Ser Glu 11e Tyr Ser Phe Met Lys Glu His Phe Pro
                             40
Tyr Phe Lys Thr Ala Pro Asp Gly Trp Lys Asn Ser Val Arg His Asn
     50
                         55
                                             60
Leu Ser Leu Asn Lys Cys Phe Glu Lys Val Glu Asn Lys Met Ser Gly
                     70
                                         75
Ser Ser Arg Lys Gly Cys Leu Trp Ala Leu Asn Leu Ala Arg Ile Asp
                 85
                                     90
Lys Met Glu Glu Glu Met His Lys Trp Lys Arg Lys Asp Leu Ala Ala
                                105
lle His Arg Ser Met Ala Asn Pro Glu Glu Leu Asp Lys Leu lle Ser
        115
                            120
                                                 125
Asp Arg Pro Glu Ser Cys Arg Arg Pro Gly Lys Pro Gly Glu Pro Glu
    130
                        135
Ala Pro Val Leu Thr His Ala Thr Thr Val Ala Val Ala His Gly Cys
                    150
                                        155
Leu Ala Val Ser Gln Leu Pro Pro Gln Pro Leu Met Thr Leu Ser Leu
                                    170
Gln Ser Val Pro Leu His His Gln Val Gln Pro Gln Ala His Leu Ala
                                185
Pro Asp Ser Pro Ala Pro Ala Gln Thr Pro Pro Leu His Ala Leu Pro
        195
                            200
                                                 205
Asp Leu Ser Pro Ser Pro Leu Pro His Pro Ala Met Gly Arg Ala Pro
   210
                        215
                                            220
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Val Asp Phe Ile Asn Ile Ser Thr Asp Met Asn Thr Glu Val Asp Ala Leu Asp Pro Ser Ile Met Asp Phe Ala Leu Gln Gly Asn Leu Trp Glu Glu Met Lys Asp Glu Gly Phe Ser Leu Asp Thr Leu Gly Ala Phe Ala Asp Ser Pro Leu Gly Cys Asp Leu Gly Ala Ser Gly Leu Thr Pro Ala Ser Gly Gly Ser Asp Gln Ser Phe Pro Asp Leu Gln Val Thr Gly Leu Tyr Thr Ala Tyr Ser Thr Pro Asp Ser Val Ala Ala Ser Gly Thr Ser Ser Ser Ser Gln Tyr Leu Gly Ala Gln Gly Asn Lys Pro Ile Ala Leu Leu

<210> 4784

<211> 594

<212> PRT

<213> Homo sapiens

<400> 4784

Met Glu Cys Tyr Tyr Ile Val Ile Ser Ser Thr His Leu Ser Asn Gly His Phe Arg Asn Ile Lys Gly Val Phe Arg Gly Pro Leu Ser Lys Asn Gly Asn Lys Thr Leu Asp Tyr Ala Glu Lys Glu Asn Thr Ile Ala Lys Ala Leu Glu Asp Leu Lys Ala Asn Phe Tyr Cys Glu Leu Cys Asp Lys Gln Tyr Tyr Lys His Gln Glu Phe Asp Asn His Ile Asn Ser Tyr Asp His Ala His Lys Gln Arg Leu Lys Glu Leu Lys Gln Arg Glu Phe Ala

Arg	Asn	Val	Ala	Ser	Lys	Ser	Arg	Lys	Asp	Glu	Arg	Lys	Gln	Glu	Lys
			100					105					110		
Ala	Leu	Gln	Arg	Leu	His	Lys	Leu	Ala	Glu	Leu	Arg	Lys	Glu	Thr	Val
		115					120					125			
Cys	Ala	Pro	Gly	Ser	Gly	Pro	Met	Phe	Lys	Ser	Thr	Thr	Val	Thr	Val
	130					135					140				
Arg	Glu	Asn	Cys	Asn	Glu	He	Ser	Gln	Arg	Val	Val	Val	Asp	Ser	Val
145					150					155					160
Asn	Asn	Gln	Gln	Asp	Phe	Lys	Tyr	Thr	Leu	Ile	His	Ser	Glu	Glu	Asn
				165					170					175	
Thr	Lys	Asp	Ala	Thr	Thr	Val	Ala	Glu	Asp	Pro	Glu	Ser	Ala	Asn	Asn
			180					185					190		
Tyr	Thr	Ala	Lys	Asn	Asn	Gln	Val	Gly	Asp	Gln	Ala	Gln	Gly	He	His
		195					200					205			
Arg	His	Lys	lle	Gly	Phe	Ser	Phe	Ala	Phe	Pro	Lys	Lys	Ala	Ser	Val
	210					215					220				
Lys	Leu	Glu	Ser	Ser	Ala	Ala	Ala	Phe	Ser		Tyr	Ser	Asp	Asp	
225					230					235					240
Ser	Val	Gly	Lys		Phe	Ser	Arg	Lys		Arg	Phe	Val	Pro		Ala
				245			_		250					255	
Cys	His	Leu		Leu	Ser	Ser	Pro		Asp	Val	Leu	Leu	Ser	Ser	Glu
			260					265					270		
Glu	Lys		Asn	Ser	Phe	His		Pro	GIu	Ala	Met		Arg	Asp	Lys
0.3	m.	275	0.1	m)	0.1	0.1	280		0.1		0	285	C.I		
GJu		Val	GIn	Ihr	GIn		He	Lys	Glu	val		Ser	Glu	Lys	Asp
	290			1)	Ċ.	295	C	1	DL -	C1	300	C1	1	C - 4-	C
	Leu	Leu	Leu	Pro		Pne	Cys	Lys	Pne		Leu	GIN	Leu	ser	
305	A 1 _	Λ	Λ	Cua	310	Aan	Com	Va1	Dwo	315	۸۱۵	Aon	Cln	Tlo	320 Pro
Asp	Ата	ASP	ASII	325		ASII	261	vai	330		MIA	лѕр	Gln	335	110
Lau	C1	Can	Vol			Acn	C1	Acn			Vol	Sor	Gly		Sor
Leu	Glu	ser	340		116	АЗП	010	345	116	110	vai	261	350	лы	361
Dho	C1.,	Lau			Aen	Lve	Sor		Val	Lou	Acn	Mot	Ser	Acn	Asn
гие	Olu	355	rea	Oly	ASII	LyS	360	1111	val	Leu	ush	ме t 365		USH	иор
Cve	114		Val	Gla	Αla	Thr		Glu	Glu	Aen	Val		His	Aen	Glu
Cys	370	261	101	0111	1110	375	1111	Old	oru	11911	380		1113	11011	GIU
	010					0.0					500				

Ala	Ser	Thr	Thr	Glu	Val	Glu	Asn	Lys	Asn	Gly	Pro	Glu	Thr	Leu	Ala
385					390					395					400
Pro	Ser	Asn	Thr	Glu	Glu	Val	Asn	He	Thr	lle	His	Lys	Lys	Thr	Asn
				405					410					415	
Phe	Cys	Lys	Arg	Gln	Cys	Glu	Pro	Phe	Val	Pro	Val	Leu	Asn	Lys	His
			420					425					430		
Arg	Ser	Thr	Val	Leu	Gln	Trp	Pro	Ser	Glu	Met	Leu	Val	Tyr	Thr	Thr
		435					440					445			
Thr	Lys	Pro	Ser	lle	Ser	Tyr	Ser	Cys	Asn	Pro	Leu	Cys	Phe	Asp	Phe
	450					455					460				
Lys	Ser	Thr	Lys	Val	Asn	Asn	Asn	Leu	Asp	Lys	Asn	Lys	Pro	Asp	Leu
465					470					475					480
Lys	Asp	Leu	Cys	Ser	Gln	Gln	Lys	Gln	Glu	Asp	lle	Cys	Met	Gly	Pro
				485					490					495	
Leu	Ser	Asp	Tyr	Lys	Asp	Val	Ser	Thr	Glu	Gly	Leu	Thr	Asp	Tyr	Glu
			500					505			-		510		
He	Gly	Ser	Ser	Lys	Asn	Lys	Cys	Ser	Gln	Val	Thr	Pro	Leu	Leu	Ala
		515					520					525			
Asp	Asp	He	Leu	Ser	Ser	Ser	Cys	Asp	Ser	Gly	Lys	Asn	Lys	Asn	Thr
	530					535					540				
Gly	Gln	Arg	Tyr	Lys	Asn	He	Ser	Cys	Lys	He	Arg	Glu	Thr	Glu	Lys
545					550					555					560
Tyr	Asn	Phe	Thr	Lys	Ser	Gln	He	Lys	Gln	Asp	Thr	Leu	Asp	Glu	Lys
				565					570					575	
Tyr	Asn	Lys	He	Arg	Leu	Lys	Glu	Thr	His	Glu	Tyr	Trp	Phe	His	Lys
			580					585					590		

Ser Arg

<211> 118

<212> PRT

<213> Homo sapiens

<400> 4785

Met	He	Thr	Phe	Tyr	Phe	Leu	Phe	Leu	Phe	Ser	Phe	Leu	Ser	Phe	Phe
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Phe	Phe	Phe	Phe	Phe	Glu	Thr	Glu	Phe	Cys	Ser	Ser	Cys	Pro	Gly	Trp
			20					25					30		
Ser	Asn	Gly	Thr	He	Leu	Ala	His	Arg	Asn	Leu	His	Leu	Pro	Gly	Ser
		35					40					45			
Ser	Asp	Ser	Pro	Pro	Ser	Ala	Phe	Pro	Ser	Ser	Trp	Asp	Tyr	Arg	His
	50					55					60				
Ala	Pro	Pro	Ser	Pro	Ala	Asn	Phe	Val	Phe	Leu	Val	Asp	Met	Gly	Leu
65					70					75					80
Leu	His	Val	Gly	Gln	Ala	Gly	Leu	Glu	Leu	Pro	Thr	Ser	Gly	Asp	Pro
				85					90					95	
Pro	Thr	Ser	Ala	Ser	Gln	Ser	Ala	Gly	He	Thr	Gly	Val	Ser	His	Cys
			100					105					110		
Ala	Arg	Pro	Leu	Phe	Ser										
		115													
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<21	1> 49	91													
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Met	Ala	Tyr	Leu	Tyr	Ser	Ser	Asp	Ala	Phe	Leu	Glu	Gly	Tyr	Val	Gln
1				5					10					15	
Gln	Phe	Leu	Tyr	Thr	Phe	Arg	Tyr		Cys	Thr	Pro	His	Asp	Phe	Leu
			20					25					30		
His	Phe	Leu	Leu	Asp	Arg	He	Asn	Ser	Thr	Leu	Thr	Arg	Ala	His	Gln
		35					40					45			
Asp	Pro	Thr	Ser	Thr	Phe	Thr	Lys	Пе	Tyr	Arg	Arg	Ser	Leu	Cys	Val
	50					55					60				
Leu	G] n	Ala	Trp	Val	Glu	Asp	Cys	Tyr	Ala	Val	Asp	Phe	Pro	Arg	Asn
65					70					75					80

Ser Gly Leu Leu Gly Lys Leu Glu Asp Phe 11e Ser Ser Lys 11e Leu

Pro	Leu	Asp	Gly 100	Ser	Ala	Lys	His	Leu 105	Leu	Gly	Leu	Leu	Glu 110	Val	Gly
Met	Asp	Arg		Ala	Glu	Gly	Asn		Arg	Gly	Thr	Asp		Glu	Asn
	•	115				-	120			·		125			
Pro	Arg	Glu	Ala	Glu	Glu	Лsp	Ala	Arg	Pro	Phe	Asn	Ala	Leu	Cys	Lys
	130					135					140				
Arg	Leu	Ser	Glu	Asp	Gly	He	Ser	Arg	Lys	Ser	Phe	Pro	Trp	Arg	Leu
145					150					155					160
Pro	Arg	Gly	Asn	Gly	Leu	Val	Leu	Pro	Pro	His	Lys	Glu	Arg	Pro	Tyr
				165					170					175	
Thr	He	Ala	Ala	Ala	Leu	Pro	Lys	Pro	Cys	Phe	Leu	Glu	Asp	Phe	Tyr
			180					185					190		
Gly	Pro	Cys	Ala	Lys	Thr	Ser	Glu	Lys	Gly	Pro	Tyr	Phe	Leu	Thr	Glu
		195					200					205			
Tyr	Ser	Thr	His	Gln	Leu	Phe	Ser	Gln	Leu	Thr	Leu	Leu	Gln	Gln	Glu
	210					215					220				
Leu	Phe	Gln	Lys	Cys	His	Pro	Val	His	Phe	Leu	Asn	Ser	Arg	Ala	Leu
225					230					235					240
Gly	Val	Met	Asp	Lys	Ser	Thr	Ala	He		Lys	Ala	Ser <sub>.</sub>	Ser		Glu
				245					250					255	
Ser	Leu	Ser		Lys	Thr	Cys	Ser		Phe	Leu	Pro	Asn		Val	Gln
_			260				_	265					270		TO 1
Asp	Lys		Leu	Leu	GIn	Leu		Arg	Asn	Ala	Asp		Val	Ser	lhr
т	17 1	275	4.1.	C1 .	11	17 . 1	280	C	11: -	T)	C	285	1	C1-	V = 1
rp		Ala	Ala	GJU	116	Val	ınr	ser	ms	inr	300	Lys	Leu	GIN	vai
Acn	290	Lou	Sor	Lve	Pho	295 Leu	Lou	Ho	Ala	Lve		Cve	Tyr	Glu	Gln
305	Leu	Leu	261	Lys	310	Leu	Leu	116	пта	315	261	Cys	1 9 1	Olu	320
	Asn	Phe	Ala	Thr		Met	Gln	He	Leu		Glv	Len	Glu	His	
M1 6	ASII	TITC	.,,,	325	Ma	,,,C. C	0,111	,110	330	561	01,	Беч	0.0	335	Bea
Ala	Val	Arg	Gln		Pro	Ala	Trp	Arg		Leu	Pro	Ala	Lvs		Ala
		6	340				•	345					350		
Glu	Val	Met		Glu	Leu	Lys	Ala		Glu	Val	Phe	Leu		Ser	Asp
		355					360					365			
Ser	Leu	Cys	Leu	Met	Glu	G1 y	Arg	Arg	Phe	Arg	Ala	Gln	Pro	Thr	Leu
	370					375					380				

Pro Ser Ala His Leu Leu Ala Met His 11e Gln Gln Leu Glu Thr Gly 390 395 385 Gly Phe Thr Met Thr Asn Gly Ala His Arg Trp Ser Lys Leu Arg Asn 410 405 415 Ile Ala Lys Val Val Ser Gln Val His Ala Phe Gln Glu Asn Pro Tyr 430 425 420 Thr Phe Ser Pro Asp Pro Lys Leu Gln Ser Tyr Leu Lys Gln Arg Ile 435 440 445 Ala Arg Phe Ser Gly Ala Asp Ile Ser Thr Leu Ala Ala Asp Ser Arg 450 455 460 Ala Asn Phe His Gln Val Ser Ser Glu Lys His Ser Arg Lys Ile Gln 470 475 480 Asp Lys Leu Arg Arg Met Lys Ala Thr Phe Gln 485 490

<210> 4787

<211> 415

<212> PRT

<213> Homo sapiens

<400> 4787

Met Val Ala Tyr Ser Val Gln Val Leu Ala Val Phe Ile Ser Cys Ala

1 5 10 15

Ile Leu Thr Leu Ala Met Lys Ile Ala Trp Ile Phe Gly Leu Asn Ser

20 25 30

Val Gln Asn Ile Thr Ala Asn Leu Ser Val Asp Gly Ser Thr Ser Gly
35 40 45

Asn Pro Ile Gln Lys Trp Lys Arg Lys lle Asp Ala Asn Cys Thr Ala 50 55 60

Arg Leu Arg Thr Leu Asn Phe Phe Phe Ala Met Ser Gly Lys Val Lys
65 70 75 80

Asp Gly Thr Pro Cys Ser Pro Asn Lys Asn Asp Val Cys lle Asp Gly
85 90 95

Val Cys Glu Leu Val Gly Cys Asp His Glu Leu Gly Ser Lys Ala Val 100 105 110

Ser	Asp	Ala	Cys	Gly	Val	Cys	Lys	Gly	Asp	Asn	Ser	Thr	Cys	Lys	Phe
		115					120					125			
Tyr	Lys	Gly	Leu	Tyr	Leu	Asn	Gln	His	Lys	Ala	Asn	Glu	Tyr	Tyr	Pro
	130					135					140				
Val	Val	Leu	He	Pro	Ala	Gly	Ala	Arg	Ser	He	Glu	lle	Gln	Glu	Leu
145					150					155					160
Gln	Val	Ser	Ser	Ser	Tyr	Leu	Ala	Val	Arg	Ser	Leu	Ser	Gln	Lys	His
				165					170					175	
Tyr	Leu	Thr	Gly	Gly	Trp	Ser	He	Asp	Trp	Pro	Gly	Glu	Phe	Pro	Phe
			180					185					190		
Ala	Gly	Thr	Thr	Phe	Glu	Tyr	Gln	Arg	Ser	Phe	Asn	Arg	Pro	Glu	Arg
		195					200					205			
Leu	Tyr	Ala	Pro	Gly	Pro	Thr	Asn	Glu	Thr	Leu	Val	Phe	Glu	Пе	Leu
	210					215					220				
Met	Gln	Gly	Lys	Asn	Pro	G]y	11e	Ala	Trp	Lys	Tyr	Ala	Leu	Pro	Lys
225					230					235					240
Val	Met	Asn	Gly	Thr	Pro	Pro	Ala	Thr	Lys	Arg	Pro	Ala	Tyr	Thr	Trp
				245					250					255	
Ser	He	Val	Gln	Ser	Glu	Cys	Ser	Val	Ser	Cys	Gly	Gly	Gly	Tyr	He
			260					265					270		
Asn	Val	Lys	Ala	He	Cys	Leu	Arg	Asp	Gln	Asn	Thr	Gln	Val	Asn	Ser
		275					280					285			
Ser	Phe	Cys	Ser	Ala	Lys	Thr	Lys	Pro	Val	Thr	G]u	Pro	Lys	He	Cys
	290					295					300				
Asn	Arg	Arg	Ala	Cys	Pro	Ala	His	Pro	Val	Tyr	Asn	Met	Val	Ala	Gly
305					310					315					320
Trp	Tyr	Ser	Leu		Trp	Gln	Gln	Cys		Val	Thr	Cys	Gly		Gly
				325					330					335	
Val	Gln	Thr		Ser	Val	His	Cys		Gln	Gln	Gly	Arg		Ser	Ser
			340					345					350		
Ser	Cys		Leu	His	Gln	Lys		Pro	Val	Leu	Arg		Cys	Asn	Thr
		355					360					365			
Asn		Cys	Pro	Ala	Pro	G]u	Lys	Arg	Glu	Asp		Ser	Cys	Val	Asp
	370					375					380				
	Phe	Asn	Trp	Cys		Leu	Val	Pro	Gln		Gly	Val	Cys	Asn	
385					390					395					400

Lys Phe Tyr Gly Lys Gln Cys Cys Lys Ser Cys Thr Arg Lys Ile

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Arg	Thr	Gln	Tyr	Thr	Val	Thr	Met	His	Asp	Pro	Arg	Ala	Pro	Ala	Leu
	210					215					220				
Arg	Trp	Asn	Thr	Thr	Tyr	Arg	Arg	Tyr	Ser	Ala	Pro	Pro	Met	Asp	G1 y
225					230					235					240
Ser	Pro	Gly	Lys	Tyr	Met	Ser	His	Leu	Ala	Ser	Cys	G1y	Met	Gly	Leu
				245					250					255	
Leu	Leu	Thr	Val	Asp	Pro	Gly	Ser	Gly	Thr	Val	Leu	Trp	Thr	Gln	Asp
	-		260					265					270		
Leu	Gly	Val	Pro	Val	Met	G1 y	Val	Tyr	Thr	Trp	His	Gln	Asp	G1 y	Leu
		275					280					285			
Arg	Gln	Leu	Pro	His	Leu	Thr	Leu	Ala	Arg	Asp		Leu	His	Phe	Leu
	290					295					300				
Ala	Leu	Arg	Trp	G1 y		He	Arg	Leu	Pro		Ser	Gly	Pro	Arg	
305					310					315					320
Thr	Ala	Thr	Leu		Ser	Thr	Leu	Asp		Gln	Leu	Leu	Met		Leu
		<b>61</b>		325	0.1	m	0.1	DI	330	17.3	C	1	4.7	335	V 1
Tyr	Val	Gly		Asp	Glu	Thr	Gly		Tyr	Val	Ser	Lys		Leu	Val
	mı	0.1	340	. 7		v. 1	р	345	C1	,	TI		350	D	A 1
H1S	Ihr	Gly	Vai	Ala	Leu	vai		Arg	GIY	Leu	Inr	ьеи 365	АТа	Pro	АТа
A an	C1	355	The	The	Aan	Chu	360 Vo.1	Thr	Lou	Cln	Vol		Cly	Glu	Ara
ASP	370	Pro	HIL	1111	ASP	375	vai	1111	Leu	GIII	380	Sei	Oly	Olu	лгg
Clu		Ser	Pro	Sor	Thr		Val	Ara	Tur	Pro		GLv	Ser	Val	Ala
385	Oly	361	110	261	390	nia	vai	Мg	1 9 1	395	561	Oly	501	, (1)	400
	Pro	Ser	Gln	Trn		Leu	He	Glv	His		Glu	Leu	Pro	Pro	
1.00	,,,	001	0111	405	200	200	110	<b>01</b> )	410			200		415	
Leu	His	Thr	Thr		Leu	Arg	Val	His			Leu	Gly	Ser		Thr
			420					425					430		
Ala	Glu	Thr		Pro	Pro	Glu	Asn	Thr	Gln	Ala	Pro	Ala	Phe	Phe	Leu
		435					440					445			
Glu	Leu	Leu	Ser	Leu	Ser	Arg	Glu	Lys	Leu	Trp	Asp	Ser	Glu	Leu	His
	450					455					460				
Pro	Glu	Glu	Lys	Thr	Pro	Asp	Ser	Tyr	Leu	Gly	Leu	Gly	Pro	G1n	Asp
465					470					475					480
Leu	Leu	Ala	Ala	Ser	Leu	Thr	Ala	Val	Leu	Leu	Gly	Gly	Trp	Ile	Leu
				485					490					495	

Phe	Val	Met	Arg	Gln	Gln	Gln	Pro	Gln	Val	Val	Glu	Lys	Gln	Gln	Glu
			500					505					510		
Thr	Pro	Leu	Ala	Pro	Ala	Asp	Phe	Ala	His	Ile	Ser	Gln	Asp	Ala	Gln
		515					520					525			
Ser	Leu	His	Ser	Gly	Ala	Ser	Arg	Arg	Ser	Gln	Lys	Arg	Leu	Gln	Ser
	530					535					540				
Pro	Ser	Lys	Gln	Ala	Gln	Pro	Leu	Asp	Asp	Pro	Glu	Ala	Glu	G1n	Leu
545					550					555					560
Thr	Val	Val	Gly	Lys	Ile	Ser	Phe	Asn	Pro	Lys	Asp	Val	Leu	Gly	Arg
				565					570					575	
Gly	Ala	Gly	Gly	Thr	Phe	Val	Phe	Arg	Gly	Gln	Phe	Glu	Gly	Arg	Ala
			580					585					590		
Val	Ala	Val	Lys	Arg	Leu	Leu	Arg	Glu	Cys	Phe	Gly	Leu	Val	Arg	Arg
		595					600					605			
Glu	Val	Gln	Leu	Leu	Gln	Glu	Ser	Asp	Arg	His	Pro	Asn	Val	Leu	Arg
	610					615					620				
Tyr	Phe	Cys	Thr	Glu	Arg	Gly	Pro	Gln	Phe	His	Tyr	He	Ala	Leu	Glu
625					630					635					640
Leu	Cys	Arg	Ala	Ser	Leu	Gln	Glu	Tyr	Val	Glu	Asn	Pro	Asp	Leu	Asp
				645					650					655	
Arg	G1 y	Gly	Leu	Glu	Pro	Glu	Val		Leu	Gln	Gln	Leu		Ser	Gly
			660					665					670		
Leu	Ala	His	Leu	His	Ser	Leu		He	Val	His	Arg		Leu	Lys	Pro
		675					680					685			
G1 y		lle	Leu	He	Thr		Pro	Asp	Ser	Gln		Leu	Gly	Arg	Val
	690					695					700				_
	Leu	Ser	Asp	Phe			Cys	Lys	Lys		Pro	Ala	GIy	Arg	
705		_			710		~ .			715	۵,	0.1	m		720
Ser	Phe	Ser	Leu			Gly	He	Pro	Gly		GIu	G1 y	Trp		Ala
_	~ *	_		725		,	15	Б.	730		ь	æ.	0	735	V. 1
Pro	Glu	Leu			Leu	Leu	Pro		Asp	Ser	Pro	lhr		Ala	Val
	~ .	•••	740		0.7			745		<b></b>			750	6.1	C1
Asp	He			Ala	Gly	Cys			Tyr	lyr	Val		Ser	Gly	6.1 y
C		755 D		6.1		C	760			<b>C</b> 3	A 7	765	77	1	TI
Ser			Phe	Gly	Asp			lyr	Arg	6In		Asn	116	Leu	ınr
	770					775					780				

Gly Ala Pro Cys Leu Ala His Leu Glu Glu Glu Val His Asp Lys Val Val Ala Arg Asp Leu Val Gly Ala Met Leu Ser Pro Leu Pro Gln Pro Arg Pro Ser Ala Pro Gln Val Leu Ala His Pro Phe Phe Trp Ser Arg Ala Lys Gln Leu Gln Phe Phe Gln Asp Val Ser Asp Trp Leu Glu Lys Glu Ser Glu Gln Glu Pro Leu Val Arg Ala Leu Glu Ala Gly Gly Cys Ala Val Val Arg Asp Asn Trp His Glu His Ile Ser Met Pro Leu Gln Thr Asp Leu Arg Lys Phe Arg Ser Tyr Lys Gly Thr Ser Val Arg Asp Leu Leu Arg Ala Val Arg Asn Lys Lys His His Tyr Arg Glu Leu Pro Val Glu Val Arg Gln Ala Leu Gly Gln Val Pro Asp Gly Phe Val Gln Tyr Phe Thr Asn Arg Phe Pro Arg Leu Leu His Thr His Arg Ala Met Arg Ser Cys Ala Ser Glu Ser Leu Phe Leu Pro Tyr Tyr Pro Pro Asp Ser Glu Ala Arg Arg Pro Cys Pro Gly Ala Thr Gly Arg 

<210> 4789

<211> 794

<212> PRT

<213> Homo sapiens

<400> 4789

Met Glu Gly Ser Leu Ala Gly Ser Leu Ala Ala Pro Asp Arg Pro Gln

1 5 10 15

Gly Pro Glu Arg Leu Pro Gly Pro Ala Pro Arg Glu Asn 11e Glu Gly

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Gly	Ala	Glu	Ala	Ala	Glu	Gly	Glu	G1 y	Gly	He	Phe	Arg	Ser	Thr	Arg
		35					40					45			
Tyr	Leu	Pro	Val	Thr	Lys	Glu	Gly	Pro	Arg	Asp	lle	Leu	Asp	G1 y	Arg
	50					55					60				
Gly	Gly	He	Ser	Val	Ala	Asn	Phe	Asp	Pro	Gly	Thr	Phe	Ser	Leu	Met
65					70					75					80
Arg	Cys	Asp	Phe	Cys	Gly	Ala	Gly	Phe	Asp	Thr	Arg	Ala	Gly	Leu	Ser
				85					90					95	
Ser	His	Ala	Arg	Ala	His	Leu	Arg	Asp	Phe	Gly	He	Thr	Asn	Trp	Glu
			100					105					110		
Leu	Thr	Val	Ser	Pro	lle	Asn	He	Leu	Gln	Glu	Leu	Leu	Ala	Thr	Ser
		115					120					125			
Ala	Ala	Glu	Gln	Pro	Pro	Ser	Pro	Leu	Gly	Arg	Glu	Pro	Gly	Gly	Pro
	130					135					140				
Pro	Gly	Ser	Phe	Leu	Thr	Ser	Arg	Arg	Pro	Arg	Leu	Pro	Leu	Thr	Val
145					150					155					160
Pro	Phe	Pro	Pro	Thr	Trp	Ala	Glu	Asp	Pro	Gly	Pro	Ala	Tyr	Gly	Asp
				165					170					175	
Ala	Ser	Gly	Pro	Glu	Pro	Ala	Arg		lle	Arg	Cys	Glu		Cys	Gly
			180					185					190		
Glu	Phe		Glu	Asn	Arg	Lys		Leu	Ser	Ser	His		Arg	Ser	His
		195					200	_	_			205			7.1
Leu		Gln	Met	Gly	Val		GIu	Trp	Tyr	Val		Gly	Ser	Pro	He
	210			0.1	7.1	215				T)	220	C		D.	C1
	Thr	Leu	Arg	Glu				Arg	Arg			Ser	Arg	Pro	Gly
225	n	D		D		C1		C	D	235		1	A 1	Lua	240
Gly	Pro	Pro	Asn		Pro	GIŸ	Pro	ser		Lys	Ala	Leu	АТА		мет
14-4	C1	C1	41-	245	Dave	C1	C	C	250	C1	Alo	A 22.00	Con	255	Son
mer	Oly	Oly	260	оту	110	Oly	Sei	265	Leu	014	міа	лгg	270	110	Ser
Aan	Lou	llic		Sor	Pro	Lou	Ala		Lvc	Lou	Pro	Pro		Pro	Gly
nsp	Leu	275	116	261	110	ren	280	LyS	Lys	Leu	110	285		110	огу
Sor	Pro		61 <sub>v</sub>	Hic	Sor	Pro		Δ1s	Ser	Pro	Pro			Ala	Arg
261	290	Leu	оту	1113	1961	295	1111	ма	561	110	300	110	1111	7,10	, 6
lve		Phe	Pro	Glv	Leu		Ala	Pro	Ser	Leu		Lvs	Lvs	Leu	Lvs

305					310					315					320
Pro	Glu	Gln	He	۸rg	Val	Glu	Пе	Lys	Arg	Glu	Met	Leu	Pro	Gly	Ala
				325					330					335	
Leu	His	Gly	Glu	Leu	His	Pro	Ser	Glu	Gly	Pro	Trp	Gly	Ala	Pro	Arg
			340					345					350		
Glu	Лsp	Met	Thr	Pro	Leu	Asn	Leu	Ser	Ser	Arg	Ala	Glu	Pro	Val	Arg
		355					360					365			
Asp	Ile	Arg	Cys	Glu	Phe	Cys	Gly	Glu	Phe	Phe	Glu	Asn	Arg	Lys	Gly
	370					375					380				
Leu	Ser	Ser	His	Ala	Arg	Ser	His	Leu	Arg	Gln	Met	Gly	Val	Thr	Glu
385					390					395					400
Trp	Ser	Val	Asn	Gly	Ser	Pro	He	Asp	Thr	Leu	Arg	Glu	Ile	Leu	Lys
				405					410					415	
Lys	Lys	Ser	Lys	Pro	Cys	Leu	lle	Lys	Lys	Glu	Pro	Pro	Ala	Gly	Asp
			420					425					430		
Leu	Ala	Pro	Ala	Leu	Ala	Glu	Asp	Gly	Pro	Pro	Thr	Val	Ala	Pro	Gly
		435					440					445			
Pro	Val	Gln	Ser	Pro	Leu	Pro	Leu	Ser	Pro	Leu	Ala	Gly	Arg	Pro	Gly
	450					455					460				
Lys	Pro	Gly	Ala	Gly	Pro	Ala	Gln	Val	Pro	Arg	Glu	Leu	Ser	Leu	Thr
465					470					475					480
Pro	He	Thr	Gly	Ala	Lys	Pro	Ser	Ala	Thr	G1 y	Tyr	Leu	Gly	Ser	Val
				485					490					495	
Ala	Ala	Lys	Arg	Pro	Leu	G1n	Glu	Asp	Arg	Leu	Leu	Pro	Ala	Glu	Val
			500					505					510		
Lys	Ala	Lys	Ala	Tyr	lle	Gln		Glu	Leu	Pro	Phe		Ala	Lys	Thr
		515					520					525			
Leu		Glu	Lys	Thr	Ser		Ser	Ser	Thr	G] u		Cys	Cys	Glu	Leu
	530					535					540				
Cys	Gly	Leu	Tyr	Phe		Asn	Arg	Lys	Ala		Ala	Ser	His	Ala	
545					550					555					560
Ala	His	Leu	Arg			Gly	Val	Thr			Cys	Val	Asn		Ser
			m-	565		0.3			570			15	0.3	575	
Pro	He	Glu		Leu	Ser	Glu	Trp			His	Arg	Pro	Gln	Lys	Val
0.7		<b></b>	580		22		0.7	585		·	Б	D	590		
Glv	Ala	Tyr	Arg	Ser	Tyr	He	Gln	Glv	Glv	Arg	Pro	Phe	Thr	LVS	Lys

		595					600					605			
Phe	Arg	Ser	Ala	Gly	His	Gly	Arg	Asp	Ser	Asp	Lys	Arg	Pro	Ser	Leu
	610					615					620				
Gly	Leu	Ala	Pro	Gly	Gly	Leu	Ala	Val	Val	Gly	Arg	Ser	Ala	Gly	Gly
625					630					635					640
Glu	Pro	Gly	Pro	Glu	Ala	Gly	Arg	Ala	Ala	Asp	Gly	Gly	Glu	Arg	Pro
				645					650					655	
Leu	Ala	Ala	Ser	Pro	Pro	Gly	Thr	Val	Lys	Ala	Glu	Glu	His	Gln	Arg
			660					665					670		
Gln	Asn	Ile	Asn	Lys	Phe	Glu	Arg	Arg	Gln	Ala	Arg	Pro	Pro	Asp	Ala
		675					680					685			
Ser	Ala	Ala	Arg	Gly	Gly	Glu	Asp	Thr	Asn	Asp	Leu	Gln	Gln	Lys	Leu
	690					695					700				
Glu	Glu	Val	Arg	Gln	Pro	Pro	Pro	Arg	Val	Arg	Pro	Val	Pro	Ser	Leu
705					710					715					720
Val	Pro	Arg	Pro	Pro	Gln	Thr	Ser	Leu	Val	Lys	Phe	Val	Gly	Asn	He
				725					730					735	
Tyr	Thr	Leu	Lys	Cys	Arg	Phe	Cys	Glu	Val	Glu	Phe	Gln	Gly	Pro	Leu
			740					745					750		
Ser	lle	Gln	Glu	Glu	Trp	Val	Arg	His	Leu	Gln	Arg	His	Ile	Leu	Glu
		755					760					765			
Met	Asn	Phe	Ser	Lys	Ala	Asp	Pro	Pro	Pro	Glu	Glu	Ser	Gln	Ala	Pro
	770					775					780				
Gln	Ala	Gln	Thr	Λla	Λla	Ala	Glu	Ala	Pro						
785					790										
<210	)> 4'	790													
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<212	2> PI	RT													
<21:	3> He	omo .	sapi	ens											
	0> 4'														
Met	Lys	Glu	Phe		Ser	Thr	Ala	Gln		Asn	Arg	Glu	Val		His
1		•		5					10					15	

Ala Gly Thr Leu Gln Ile His Glu Ser His His Asn Gly Asp Phe Cys

			20					25					30		
Tyr	Gln	Asp	Val	Asp	Lys	Asp	Ile	His	Asp	Tyr	Glu	Phe	Gln	Trp	Gln
		35					40					45			
Glu	Asp	Glu	Arg	Asn	Gly	His	Glu	Ala	Pro	Met	Thr	Lys	He	Lys	Lys
	50					55					60				
Leu	Thr	Gly	Ser	Thr	Glu	Arg	Tyr	Asp	G1n	Ser	His	Ala	Arg	Asn	Lys
65					70					75					80
Pro	lle	Lys	Asp	Gln	Leu	Gly	Ser	Ser	Phe	His	Ser	His	Leu	Pro	Glu
				85					90					95	
Met	His	Ile	Phe	G1n	Thr	Glu	Glu	Lys	Ile	Asp	Asn	Gln	Val	Val	Lys
			100					105					110		
Ser	He	His	Asp	Ala	Ser	Leu	Val	Ser	Thr	Ala	Gln	Arg	lle	Ser	Cys
		115					120					125			
Arg	Pro	Lys	Thr	His	He	Ser	Asn	Asn	His	Gly	Asn	Asn	Phe	Trp	Asn
	130					135					140				
	Ser	Leu	Leu	Thr		Lys	Gln	Glu	Val		Met	Arg	Glu	Lys	
145					150					155					160
Phe	Gln	Cys	Asn		Ser	Gly	Lys	Ala		Asn	Tyr	Ser	Ser		Leu
				165					170					175	,, ~
Arg	Lys	His		lle	He	His	Leu		Asp	Lys	Tyr	Lys		Asp	Val
~	0.7		180	D.I.	à	0.3	,	185			4.3	C	190		
Cys	Gly	Lys	Leu	Phe	Asn	GIn		Arg	Asn	Leu	Ala		His	Arg	Arg
-	11.	195	C I	C1	Δ.	D-	200	1	C	Λ	C1	205	C1	1	TL
Cys		Thr	61y	61u	Asn		ıyr	Lys	cys	Asn		Cys	оту	Lys	ınr
Dla -	210	C1-	The	San	Sor	215	Thr	Cvc	ньс	122	220	Lou	ніс	Thr	Clu
225		GIn	m	ser	Ser 230		mr	Cys	1112	Arg 235		Leu	1112	1111	240
		Pro	Tur	Luc			Glu	Cvs	Aen			Phe	Hie	Phe	
Giu	Lys	110	1 y 1	245	Cys	oru	GIU	СуЗ	250	Lys	111 CI	ine	1113	255	Lyo
Ser	110	Leu	Glu		His	Ser	He	He		Thr	Glu	Glu	Lvs		Tvr
501	110	Lou	260	,,, g	1113	501	110	265		1,11	Olu	010	270		. , .
Lvs	Cvs	Asn		Cvs	Glv	Lvs	Thr		Arg	Gln	Lvs	Ser		Leu	Thr
<b>.</b>	-,.,	275		-,~	3	5	280					285			
Arg	His	His	Arg	Leu	His	Thr		Glu	Lys	Pro	Tyr		Cys	Asn	Glu
O	290		J			295	,		•		300	•	-		
Cys		Lys	Thr	Phe	Ser	His	Lys	Ser	Ser	Leu	Thr	Cys	His	His	Arg

305					310					315					320
Leu	His	Thr	Gly	G1u 325	Lys	Pro	Tyr	Lys	Cys 330	Asn	Glu	Cys	Gly	Lys 335	Thr
Phe	Ser	His	Lys 340	Ser	Ser	Leu	Thr	Cys 345	His	Arg	Arg	Leu	His 350	Thr	Gly
Glu	Lys	Pro 355	Tyr	Lys	Cys	Glu	G1u 360	Cys	Asp	Lys	Ala	Tyr 365	Ser	Phe	Arg
Ser	Asn 370	Phe	Glu	lle	His	Arg 375	Lys	Ile	His	Thr	Glu 380	Asp	Asn	Ala	Tyr
Lys 385	Cys	Asn	Glu	Cys	Gly 390	Lys	Thr	Phe	Ser	Arg 395	Thr	Ser	Ser	Leu	Thr 400
Cys	His	Arg	Arg	Arg 405	His	Thr	Gly	Glu	Gln 410	Pro	Tyr	Lys	Cys	Glu 415	Glu
Cys	Asp	Lys	Ala 420	Phe	Arg	Phe	Lys	Ser 425	Asn	Leu	Glu	Arg	His 430	Arg	Arg
lle	His	Thr 435	Gly	Glu	Lys	Pro	Tyr 440	Lys	Cys	Asn	Glu	Cys 445	Gly	Lys	Thr
Phe	Ser 450	Arg	Lys	Ser	Tyr	Leu 455	Thr	Cys	His	His	Arg 460	Leu	His	Thr	Gly
Glu 465	Lys	Ala	Tyr	Lys	Cys 470	Asn	Glu	Cys	Gly	Lys 475	Thr	Phe	Ser	Trp	Lys 480
Ser	Ser	Leu	Thr	Cys 485	His	Arg	Arg	Leu	His 490	Ser	Gly	Glu	Lys	Pro 495	Tyr
Lys	Cys	Lys	Glu 500	Cys	Gly	Lys	Thr	Phe 505	Asn	Gln	Gln	Leu	Thr 510	Leu	Lys
Arg	His	Arg 515	Arg	Leu	His	Ser	Gly 520	Glu	Asn	Pro	Tyr	Lys 525	Cys	Glu	Asp
Ser	Asp 530	Lys	Ala	Tyr	Ser	Phe 535	Lys	Ser	Asn	Leu	Glu 540	Ile	His	Gln	Lys
11e 545	His	Thr	Glu	Glu	Asn 550	Pro	Tyr	Lys	Cys	Asn 555	Glu	Cys	Gly	Lys	Thr 560
Phe	Ser	Arg	Thr	Ser 565	Ser	Leu	Thr	Cys	His 570		Arg	Leu	His	Thr 575	Gly
Glu	Lys	Pro	Tyr 580	Lys	Cys	Glu	Glu	Cys 585	Asp	Lys	Ala	Phe	Arg 590	Val	Lys

Ser Asn Leu Glu Gly His Arg Arg Ile His Thr Gly Glu Lys Pro Tyr 600 Lys Cys Asn Glu Cys Gly Lys Thr Phe Ser Arg Lys Ser Tyr Phe lle 615 620 610 Cys His His Arg Leu His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu 630 635 Cys Gly Lys Asn Phe Ser Gln Lys Ser Ser Leu Ile Cys His His Arg 650 645 Leu His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Thr 665 660 Phe Ser Gln Lys Ser Asn Leu Thr Cys His Arg Arg Leu His Thr Gly 675 680 685 Glu Lys Gln Val 690

<210> 4791

<211> 872

<212> PRT

<213> Homo sapiens

<400> 4791

Met Gly 11e Val Trp 11e Leu Met Ser Val Leu Pro Trp Gly Arg
1 5 10 15

Cys Ala Asp Leu Ala Ile Ala Ser Thr Gln Leu Val Pro Ser Thr Ala 20 25 30

Ser Ala Arg Met Ala Leu Ser Ser Gln Leu Met Gly Arg Thr Val Trp 35 40 45

Thr Pro Met Ser Ala Ser Ala Leu Gln Glu Pro Ala Tyr Gln Ala Leu 50 55 60

Ala Arg Thr Ser Arg Ala Pro Ser Ala Ala Ser Val Pro Met Ala Ser
65 70 75 80

Arg Cys Arg Val Thr Thr Ala Leu 11e Ser Thr Ser Ala Gln Arg Ser

85 90 95

Pro Thr Ser Ala Ser Leu Ala Pro Val Pro Thr Ala Leu Gly Ala Ser 100 105 110

Ser	Ala	Ser	Ala	His	Leu	Ala	Leu	Ser	Ser	Leu	Thr	Met	Gly	Thr	Val
		115					120					125			
Ala	Leu	Thr	His	Gly	Arg	Val	Ser	Ala	Ser	Pro	Val	Leu	Arg	Leu	Gly
	130					135					140				
Ser	Ala	۸rg	Cys	Pro	Lys	Leu	Ser	Thr	Pro	Pro	Arg	Pro	Ala	Ala	Ala
145					150					155					160
Ala	Val	Arg	Gly	Leu	Gly	Arg	Λla	Gly	Glu	Thr	Pro	Ala	Asn	Cys	Val
				165					170					175	
Ser	Arg	Arg	Ala	Val	Pro	Gly	Pro	Asp	Asp	Ser	Arg	Glu	Asp	Val	Asn
			180					185					190		
Glu	Cys	Ala	Glu	Asn	Pro	Gly	Val	Cys	Thr	Asn	Gly		Cys	Val	Asn
		195					200					205			
Thr		Gly	Ser	Phe	Arg		Glu	Cys	Pro	Phe		Tyr	Ser	Leu	Asp
	210					215					220				
	Thr	G1 y	He	Asn		Val	Asp	Thr	Asp		Cys	Ser	Val	G1 y	
225		6.1	0.1	0.1	230	0	an i		1: 1	235	C1	61	DI	C1	240
Pro	Cys	Gly	GIn		Thr	Cys	Thr	Asn		He	ыу	61y	Phe	Glu	Cys
4.7	C	. 1		245	DI	C1	D	C1	250	M - 4	Mark	Т1	C	255	۸
Ala	Cys	Ala		61 y	Pne	GIU	Pro		Leu	мет	мет	ınr	270	Glu	ASP
Tlo	A	Clu	260	Com	Lan	Aan	Dro	265	Lou	Cvc	Alo.	Dho		Cvc	Hic
116	, vsb	275	Cys	261	Leu	ASII	280	Leu	Leu	Cys	MIA	285	ni g	Cys	1113
Aen	Thr		Glv	Ser	Tyr	Leu		Thr	Cvs	Pro	Ala		Tvr	Thr	Len
изп	290	Olu	Ory	501	1,1	295	Cy S	1111	0,5	110	300	01)	1,1		Бей
Arg		Asp	Glv	Ala	Met		Arg	Asp	Val	Asp		Cvs	Ala	Asp	Glv
305			•		310			,		315		·		•	320
	Gln	Asp	Cys	His		Arg	Gly	Met	Glu		Lys	Asn	Leu	He	
		•	•	325					330					335	
Thr	Phe	Ala	Cys	Val	Cys	Pro	Pro	Gly	Met	Arg	Pro	Leu	Pro	Gly	Ser
			340					345					350		
Gly	Glu	Gly	Cys	Thr	Asp	Asp	Asn	Glu	Cys	His	Ala	Gln	Pro	Asp	Leu
		355					360					365			
Cys	Val	Asn	Gly	Arg	Cys	Va]	Asn	Thr	Ala	Gly	Ser	Phe	Arg	Cys	Asp
	370					375					380				
Cys	Asp	Glu	Gly	Phe	Gln	Pro	Ser	Pro	Thr	Leu	Thr	Glu	Cys	His	Asp
385					390					395					400

11	e Arg	g Gln	Gly	Pro	Cys	Phe	Ala	Glu	Val	Leu	Gln	Thr	Met	Cys	Arg
				405					410					415	
Se	r Lei	ı Ser	Ser	Ser	Ser	Glu	Ala	Val	Thr	Arg	Ala	Glu	Cys	Cys	Cys
			420					425					430		
G1	y Gly	Gly	Arg	Gly	Trp	Gly	Pro	Arg	Cys	Glu	Leu	Cys	Pro	Leu	Pro
		435					440					445			
Gl	y Thi	· Ser	Ala	Tyr	Arg	Lys	Leu	Cys	Pro	His	Gly	Ser	Gly	Tyr	Thr
	450	)				455					460				
A1	a Glu	ı Gly	Arg	Asp	Val	Asp	Glu	Cys	Arg	Met	Leu	Ala	His	Leu	Cys
46	5				470					475					480
A1	a His	s Gly	Glu	Cys	lle	Asn	Ser	Leu	Gly	Ser	Phe	Arg	Cys	His	Cys
				485					490					495	
Gl	n Ala	a Gly	Tyr	Thr	Pro	Asp	Ala	Thr	Ala	Thr	Thr	Cys	Leu	Asp	Met
			500					505					510		
As	p Glu	ı Cys	Ser	Gln	Val	Pro	Lys	Pro	Cys	Thr	Phe	Leu	Cys	Lys	Asn
		515					520					525			
Th	r Lys	s Gly	Ser	Phe	Leu	Cys	Ser	Cys	Pro	Arg	Gly	Tyr	Leu	Leu	Glu
	530	)				535					540				
G1	u Ası	o Gly	Arg	Thr	Cys	Lys	Asp	Leu	Asp	Glu	Cys	Thr	Ser	Arg	Gln
54	5				550					555					560
Hi	s Ası	n Cys	Gln	Phe	Leu	Cys	Val	Asn	Thr	Val	Gly	Ala	Phe	Thr	Cys
				565					570					575	
Ar	g Cy:	s Pro	Pro	Gly	Phe	Thr	Gln	His	His	Gln	Ala	Cys	Phe	Asp	Val
			580					585					590		
As	n Gli	ı Cys	Asp	Gly	Pro	His	Arg	Cys	Gln	His	Gly	Cys	Gln	Asn	G1n
		595					600					605			
Le		y Gly	Tyr	Arg	Cys		Cys	Pro	61n	Gly		Thr	Gln	His	Ser
	616					615					620				_
		o Ala	Gln	Cys		Asp	Glu	Asn	G1u		Ala	Leu	Ser	Pro	
62					630					635					640
Th	r Cy:	s Gly	Ser		Ser	Cys	Arg	Asn		Leu	Gly	Gly	Phe		Cys
				645					650					655	
Va	1 Cy:	s Pro			Phe	Asp	Phe		GIn	Ala	Leu	GIy		Cys	GIn
			660			0.3		665		<b>.</b>			670	C	0
As	p Va	l Asp		Cys	Ala	GLy	_	Arg	Gly	Pro	Cys		lyr	Ser	Cys
		675	1				680					685			

Ala Asn Thr Pro Gly Gly Phe Leu Cys Gly Cys Pro Gln Gly Tyr Phe 695 Arg Ala Gly Gln Gly His Cys Val Ser Gly Leu Gly Phe Ser Pro Gly 720 715 710 Pro Gln Asp Thr Pro Asp Lys Glu Glu Leu Leu Ser Ser Glu Ala Cys 730 725 Tyr Glu Cys Lys Ile Asn Gly Leu Ser Pro Arg Asp Arg Pro Arg Arg 745 740 Ser Ala His Arg Asp His Gln Val Asn Leu Ala Thr Leu Asp Ser Glu 755 760 765 Ala Leu Leu Thr Leu Gly Leu Asn Leu Ser His Leu Gly Arg Ala Glu 775 Arg Ile Leu Glu Leu Arg Pro Ala Leu Glu Gly Leu Glu Gly Arg Ile 795 800 790 785 Arg Tvr Val lle Val Arg Gly Asn Glu Gln Gly Phe Phe Arg Met His 805 810 His Leu Arg Gly Val Ser Ser Leu Gln Leu Gly Arg Arg Arg Pro Gly 825 Pro Gly Thr Tyr Arg Leu Glu Val Val Ser His Met Ala Gly Pro Trp 845 835 840 Gly Val Gln Pro Glu Gly Gln Pro Gly Pro Trp Gly Gln Ala Leu Arg 860 850 855 Leu Lys Val Gln Leu Gln Leu Leu 870 865

<210> 4792

<211> 1015

<212> PRT

<213> Homo sapiens

<400> 4792

Met Asp Ile Met Ser Ala Gln Ala Ser Ser Gly Ser Thr Ser Val Leu

1 5 10 15

Arg Trp Val Leu Ser Cys Leu Ala Thr Leu Leu Arg Lys Gln Asp Leu

20 25 30

Glu	Ala	Trp	Gly	Tyr	Pro	Val	Thr	Leu	Gln	Val	Tyr	His	G1 y	Leu	Leu
		35					40					45			
Ser	Phe	Thr	Val	His	Pro	Lys	Pro	Lys	Leu	Val	Thr	Ala	Cys	Ala	Met
	50					55					60				
G1n	Ala	Phe	His	Ser	Leu	Phe	His	Ala	Arg	Pro	Gly	Leu	Ser	Thr	Leu
65					70					75					80
Ser	Ala	Glu	Leu	Asn	Ala	Gln	He	He	Thr	Ala	Leu	Tyr	Asp	Tyr	Val
				85					90					95	
Pro	Ser	Glu	Asp	Asp	Leu	Gln	Pro	Leu	Leu	Ala	Trp	Leu	Lys	Val	Met
			100					105					110		
Glu	Lys	Ala	His	Ile	Așn	Leu	Val	Arg	Leu	Gln	Trp	Asp	Leu	Gly	Leu
		115					120					125			
Gly	His	Leu	Pro	Arg	Phe	Phe	Gly	Thr	Ala	Val	Thr	Cys	Leu	Leu	Ser
	130					135					140				
Pro	His	Ser	Gln	Val	Leu	Thr	Ala	Ala	Thr	Gln	Ser	Leu	Lys	Glu	He
145					150					155					160
Leu	Lys	Glu	Cys	Val	Ala	Pro	His	Met	Ala	Asp	He	Gly	Ser	Val	Thr
				165					170					175	
Ser	Ser	Ala	Ser	Gly	Pro	Ala	Gln	Ser	Val	Ala	Lys	Met	Phe	Arg	Ala
			180					185					190		
Val	Glu	Glu	Gly	Leu	Thr	Tyr	Lys	Phe	His	Ala	Ala	Trp	Ser	Ser	Val
		195					200					205			
Leu	Gln	Leu	Leu	Cys	Val	Phe	Phe	G] u	Ala	Cys	Gly	Arg	Gln	Ala	His
	210					215					220				
Pro	Val	Met	Arg	Lys	Cys	Leu	Gln	Ser	Leu	Cys	Asp	Leu	Arg	Leu	Ser
225					230					235					240
Pro	His	Phe	Pro	His	Thr	Ala	Ala	Leu		Gln	Ala	Val	Gly	Ala	Ala
				245					250					255	
Val	Thr	Ser	Met	Gly	Pro	Glu	Val	Va1	Leu	Gln	Ala	Val	Pro	Leu	Glu
			260					265					270		
He	Asp	Gly	Ser	Glu	Glu	Thr	Leu	Asp	Phe	Pro	Arg	Ser	Trp	Leu	Leu
		275					280					285			
Pro	Va1	lle	Arg	Asp	His	Va]	Gln	G] u	Thr	Arg	Leu	Gly	Phe	Phe	Thr
	290					295					300				
Thr	Tyr	Phe	Leu	Pro	Leu	Ala	Asn	Thr	Leu	Lys	Ser	Lys	Ala	Met	Asp
305					310					315					320

Leu	Ala	Gln	Ala		Ser	Thr	Val	Glu		Lys	Ile	Tyr	Asp		Leu
				325					330					335	
Gln	Trp	G1n		Trp	Thr	Leu	Leu		Gly	Phe	Cys	Thr		Pro	Thr
			340					345					350		
Asp	Val	Ala	He	Ser	Phe	Lys	Gly	Leu	Ala	Arg	Thr	Leu	Gly	Met	Ala
		355					360					365			
Ile	Ser	Glu	Arg	Pro	Asp	Leu	Arg	Val	Thr	Val	Cys	G1n	Val	Leu	Arg
	370					375					380				
Thr	Leu	Ile	Thr	Lys	Gly	Cys	Gln	Ala	Glu	Ala	Asp	Arg	Ala	Glu	Val
385					390					395					400
Ser	Arg	Phe	Ala	Lys	Asn	Phe	Leu	Pro	He	Leu	Phe	Asn	Leu	Tyr	Gly
				405					410					415	
Gln	Pro	Val	Ala	Ala	Gly	Asp	Thr	Pro	Ala	Pro	Arg	Arg	Ala	Val	Leu
			420					425					430		
Glu	Thr	lle	Arg	Thr	Tyr	Leu	Thr	He	Thr	Asp	Thr	G1n	Leu	Val	Asn
		435					440					445			
Ser	Leu	Leu	Glu	Lys	Ala	Ser	Glu	Lys	Val	Leu	Asp	Pro	Ala	Ser	Ser
	450					455					460				
Asp	Phe	Thr	Arg	Leu	Ser	Val	Leu	Asp	Leu	Val	Val	Ala	Leu	Ala	Pro
465					470					475					480
	Ala	Asp	Glu	Ala	Ala	He	Ser	Lys	Leu	Tyr	Ser	Thr	lle	Arg	Pro
•		·		485					490					495	
Tvr	Leu	Glu	Ser		Ala	His	Glv	Val		Lvs	Lvs	Ala	Tvr	Arg	Val
<b>V</b>			500	,			٠	505		Ĭ	,		510	Ŭ	
Leu	Ġlu	Glu		Cvs	Ala	Ser	Pro		Glv	Pro	Glv	Ala		Phe	Val
		515		- 3 -			520		- •			525			
Gln	Ser	His	Leu	Glu	Asp	Leu		Lvs	Thr	l.eu	Leu		Ser	Leu	Arg
0111	530		200	014		535	25,0	2,0		200	540				0
Ser		Ser	Ser	Pro	Ala		Arø	Pro	Arø	Leu		Cvs	Leu	len	His
545	1111	501	561	110	550	13,5	8	110	711 8	555		Cys	Bed	13.0	560
	Val	Arg	Lve	Lou		Δla	Clu	Hic	Lve			116	Thr	Δla	
116	vai	AI g	Lys	565	561	Ald	Olu	1115	570	Olu	THE	110	1111	575	Leu
11.	Dago	C1.,	Vol		Lou	Cvc	The	Luc		Val	Son	Vol	C1 <sub>11</sub>		Ara
116	rro	Glu		116	ren	CyS	шт		Olu	val	ser	val	590	MId	vi 8
1	Λ	A 1 .	580	A 1 -	1	1	V = 1	585	Mad	C1.	ш	۸٦.		Lavi	Λ ~-
Lys	ASN	Ala	rne	Ala	Leu	Leu		oru	Met	ыу	пIS		rne	Leu	arg
		595					600					605			

Phe	Gly	Ser	Asn	Gln	Glu	Glu	Ala	Leu	Gln	Cys	Tyr	Leu	Val	Leu	Πle
	610					615					620				
Tyr	Pro	Gly	Leu	Val	Gly	Ala	Val	Thr	Met	Val	Ser	Cys	Ser	He	Leu
625					630					635					640
Ala	Leu	Thr	His	Leu	Leu	Phe	Glu	Phe	Lys	Gly	Leu	Met	G1 y	Thr	Ser
				645					650					655	
Thr	Val	Glu	Gln	Leu	Leu	Glu	Asn	Val	Cys	Leu	Leu	Leu	Ala	Ser	Arg
			660					665					670		
Thr	Arg	Asp	Val	Val	Lys	Ser	Ala	Leu	Gly	Phe	He	Lys	Val	Ala	Val
		675					680					685			
Thr	Val	Met	Asp	Val	Ala	His	Leu	Ala	Lys	His	Val	Gln	Leu	Val	Met
	690					695					700				
Glu	Ala	He	Gly	Lys	Leu	Ser	Asp	Asp	Met	Arg	Arg	His	Phe	Arg	Met
705					710					715					720
Lys	Leu	Arg	Asn	Leu	Phe	Thr	Lys	Phe	He	Arg	Lys	Phe	Gly	Phe	Glu
				725					730					735	
Leu	Val	Lys	Arg	Leu	Leu	Pro	Glu	Glu	Tyr	His	Arg	Val	Leu	Val	Asn
			740					745					750		
He	Arg	Lys	Ala	Glu	Ala	Arg	Ala	Lys	Arg	His	Arg	Ala	Leu	Ser	Gln
		755					760					765			
Ala	Ala	Val	Glu	Pro	Ala										
	770					775					780				
Gln	Gly	Lys	Gly	Asp	Ser	lle	Glu	G]u	lle	Leu	Ala	Asp	Ser	Glu	Asp
785					790					795					800
Glu	Glu	Asp	Asn	Glu	Glu	Glu	Glu	Arg	Ser	Arg	Gly	Lys	Glu	Gln	Arg
				805					810					815	
Lys	Leu	Ala	Arg	Gln	Arg	Ser	Arg	Ala	Trp	Leu	Lys	Glu	Gly	Gly	Gly
			820					825					830		
Asp	Glu	Pro	Leu	Asn	Phe	Leu	Asp	Pro	Lys	Va]	Ala	G]n	Arg	Val	Leu
		835					840					845			
Ala	Thr	Gln	Pro	Gly	Pro	Gly	Arg	Gly	Arg	Lys	Lys	Asp	His	Gly	Phe
	850					855					860				
Lys	Val	Ser	Ala	Asp	Gly	Arg	Leu	lle	He	Arg	Glu	Glu	Ala	Asp	Gly
865					870					875					880
Asn	Lys	Met	Glu	Glu	Glu	Glu	Gly	Ala	Lys	Gly	Glu	Asp	Glu	Glu	Met
				885					890					895	

.

Ala Asp Pro Met Glu Asp Val Ile Ile Arg Asn Lys Lys His Gln Lys Leu Lys His Gln Lys Glu Ala Glu Glu Glu Glu Leu Glu Ile Pro Pro Gln Tyr Gln Ala Gly Gly Ser Gly Ile His Arg Pro Val Ala Lys Lys Ala Met Pro Gly Ala Glu Tyr Lys Ala Lys Lys Ala Lys Gly Asp Val Lys Lys Gly Arg Pro Asp Pro Tyr Ala Tyr Ile Pro Leu Asn Arg Ser Lys Leu Asn Arg Arg Lys Lys Met Lys Leu Gln Gly Gln Phe Lys Gly Leu Val Lys Ala Ala Gln Arg Gly Ser Gln Val Gly His Lys Asn Arg Arg Lys Asp Arg Arg Pro 

<210> 4793

<211> 445

<212> PRT

<213> Homo sapiens

<400> 4793

Met Lys Asn Pro Glu Ala Gln Gln Asp Val Ser Val Ser Gln Gly Phe Arg Met Leu Phe Tyr Thr Met Lys Pro Ser Glu Thr Ser Phe Gln Thr Leu Glu Glu Val Pro Asp Tyr Val Lys Lys Ala Thr Pro Phe Phe Ile Ser Leu Met Leu Leu Glu Leu Val Val Ser Trp Ile Leu Lys Gly Lys Pro Pro Gly Arg Leu Asp Asp Ala Leu Thr Ser Ile Ser Ala Gly Val Leu Ser Arg Leu Pro Ser Leu Phe Phe Arg Ser 11e Glu Leu Thr Ser

Tyr	Ile	Tyr	He	Trp	Glu	Asn	Tyr	Arg	Leu	Phe	Asn	Leu	Pro	Trp	Asp
			100					105					110		
Ser	Pro	Trp	Thr	Trp	Tyr	Ser	Ala	Phe	Leu	Gly	Val	Asp	Phe	Gly	Tyr
		115					120					125			
Tyr	Trp	Phe	His	Arg	Met	Ala	His	Glu	Val	Asn	He	Met	Trp	Ala	Gly
	130					135					140				
His	Gln	Thr	His	His	Ser	Ser	Glu	Asp	Tyr	Asn	Leu	Ser	Thr	Ala	Leu
145					150					155					160
Arg	Gln	Ser	Val	Leu	Gln	He	Tyr	Thr	Ser	Trp	Ile	Phe	Tyr	Ser	Pro
				165					170					175	
Leu	Ala	Leu	Phe	Ile	Pro	Pro	Ser	Val	Tyr	Ala	Val	His	Leu	Gln	Phe
			180					185					190		
Asn	Leu	Leu	Tyr	Gln	Phe	Trp	He	His	Thr	Glu	Val	Пe	Asn	Asn	Leu
		195					200					205			
Gly	Pro	Leu	Glu	Leu	lle	Leu	Asn	Thr	Pro	Ser	His	His	Arg	Val	His
	210					215					220				
His	Gly	Arg	Asn	Arg	Tyr	Cys	He	Asp	Lys	Asn	Tyr	Ala	Gly	Val	Leu
225					230					235					240
Ile	He	Trp	Asp	Lys	lle	Phe	Gly	Thr	Phe	Glu	Ala	Glu	Asn	Glu	Lys
				245					250					255	
Val	Val	Tyr	Gly	Leu	Thr	His	Pro	He	Asn	Thr	Phe	Glu	Pro	lle	Lys
			260					265					270		
Val	Gln	Phe	His	His	Leu	Phe	Ser	lle	Trp	Thr	Thr	Phe	Trp	Ala	Thr
		275					280					285			
Pro	Gly	Phe	Phe	Asn	Lys	Phe	Ser	Va]	He	Phe	Lys	G1 y	Pro	Gly	Trp
	290					295					300				
Gly	Pro	Gly	Lys	Pro	Arg	Leu	Gly	Leu	Ser	Glu	Glu	lle	Pro	Glu	Val
305					310					315					320
Thr	Gly	Lys	Glu	Val	Pro	Phe	Ser	Ser	Ser	Ser	Ser	Gln	Leu	Leu	Lys
				325					330					335	
lle	Tyr	Thr	Val	Val	Gln	Phe	Ala	Leu	Met	Leu	Ala	Phe	Tyr	Glu	Glu
			340					345					350		
Thr	Phe	Ala	Asp	Thr	Ala	Ala	Leu	Ser	Gln	Val	Thr	Leu	Leu	Leu	Arg
		355					360					365			
Val	Cys	Phe	He	He	Leu	Thr	Leu	Thr	Ser	He	Gly	Phe	Leu	Leu	Asp
	370					375					380				

<210> 4794

<211> 735

<212> PRT

<213> Homo sapiens

<400> 4794

Asp Phe Gly Lys Lys Asp Cys Pro Trp Pro Cys Pro Lys Cys Arg Phe 50 55 60

40

Glu Tyr Lys Arg Ser Glu Thr Pro Ser Arg Tyr Tyr Cys Tyr Cys Gly
65 70 75 80

Lys Val Glu Asp Pro Pro Leu Asp Pro Trp Leu Val Pro His Ser Cys
85 90 95

Gly Gln Val Cys Glu Arg Glu Phe Lys Pro Pro Cys Gly His Lys Cys 100 105 110

Leu Leu Cys His Pro Gly Pro Cys Pro Pro Cys Pro Lys Met Val

Thr Thr Thr Cys Tyr Cys Lys Lys Ala Lys Pro Ile Pro Arg Arg Cys
130 135 140

Ser Ala Lys Glu Trp Ser Cys Gln Leu Pro Cys Gly Gln Lys Leu Leu 145 150 155 160

Cys	G1 y	Gln	His	Lys	Cys	Glu	Asn	Pro	Cys	His	Ala	Gly	Ser	Cys	Gln
				165					170					175	
Pro	Cys	Pro	Arg	Val	Ser	Arg	Gln	Lys	Cys	Val	Cys	Gly	Lys	Lys	Val
			180					185					190		
Ala	Glu	Arg	Ser	Cys	Ala	Ser	Pro	Leu	Trp	His	Cys	Asp	Gln	Val	Cys
		195					200					205			
Gly	Lys	Thr	Leu	Pro	Cys	Gly	Asn	His	Thr	Cys	Glu	Gln	Val	Cys	His
	210					215					220				
Val	Gly	Ala	Cys	Gly	Glu	Cys	Pro	Arg	Ser	Gly	Lys	Arg	Phe	Cys	Pro
225					230					235					240
Cys	Gln	Lys	Ser	Lys	Phe	Ser	Leu	Pro	Cys	Thr	Glu	Asp	Val	Pro	Thr
				245					250					255	
Cys	Gly	Asp	Ser	Cys	Asp	Lys	Val	Leu	Glu	Cys	Gly	He	His	Arg	Cys
			260					265					270		
Ser	Gln	Arg	Cys	His	Arg	Gly	Pro	Cys	Glu	Thr	Cys	Arg	Gln	Glu	Val
		275					280					285			
Glu	Lys	His	Cys	Arg	Cys	Gly	Lys	His	Thr	Lys	Arg	Met	Pro	Cys	His
	290					295					300				
Lys	Pro	Tyr	Leu	Cys	Glu	Thr	Lys	Cys	Val	Lys	Met	Arg	Asp	Cys	Gln
305					310					315					320
Lys	His	Gln	Cys	Arg	Arg	Lys	Cys	Cys	Pro	G] y	Asn	Cys	Pro	Pro	Cys
				325					330					335	
Asp	Gln	Asn	Cys	Gly	Arg	Thr	Leu	Gly	Cys	Arg	Asn	His	Lys	Cys	Pro
			340					345					350		
Ser	Val	Cys	His	Arg	Gly	Ser	Cys	Tyr	Pro	Cys	Pro	Glu	Thr	Val	Asp
		355					360					365			
Val	Lys	Cys	Asn	Cys	Gly	Asn	Thr	Lys	Val	Thr	Val	Pro	Cys	Gly	Arg
	370					375					380				
Glu	Arg	Thr	Thr	Arg	Pro	Pro	Lys	Cys	Lys	Glu	Gln	Cys	Ser	Arg	Pro
385					390					395					400
Pro	Thr	Cys	His	His	Thr	Ser	Gln	Glu	Lys	His	Arg	Cys	His	Phe	Gly
				405					410					415	
Ser	Cys	Pro	Pro	Cys	His	Gln	Pro	Cys	Gln	Lys	Val	Leu	Glu	Lys	Cys
			420					425					430		
G1 y	His	Leu	Cys	Pro	Ala	Pro	Cys	His	Asp	Gln	Ala	Leu	He	Lys	Gln
		435					440					445			

Thr	Gly	Arg	His	Gln	Pro	Thr	Gly	Pro	Trp	Glu	Gln	Pro	Ser	Glu	Pro
	450					455					460				
Ala	Phe	He	G1n	Thr	Ala	Leu	Pro	Cys	Pro	Pro	Cys	Gln	Val	Pro	lle
465					470					475					480
Pro	Met	Glu	Cys	Leu	Gly	Lys	His	Glu	Val	Ser	Pro	Leu	Pro	Cys	His
				485					490					495	
Ala	Val	Gly	Pro	Tyr	Ser	Cys	Lys	Arg	Val	Cys	Gly	Arg	lle	Leu	Asp
			500					505					510		
Cys	Gln	Asn	His	Thr	Cys	Met	Lys	Glu	Cys	His	Lys	Val	Thr	Lys	Thr
		515					520					525			
Asp	Gly	Cys	Thr	Gly	Lys	Asn	Lys	Ala	Gly	Pro	Glu	Cys	Leu	His	Cys
	530					535					540				
Glu	Glu	Gly	Cys	Ser	Lys	Ser	Arg	Pro	Leu	Gly	Cys	Leu	His	Pro	Cys
545					550					555					560
He	Leu	Arg	Cys	His	Pro	Gly	Glu	Cys	Pro	Pro	Cys	Val	Gln	Met	Leu
				565					570					575	
Arg	lle	Lys	Cys	His	Cys	Lys	lle	Thr	Ser	Leu	Tyr	Val	Glu	Cys	Arg
			580					585					590		
Lys	lle	Thr	Thr	Ala	Asp	Val	Asn	Glu	Lys	Asn	Leu	Leu	Ser	Cys	Cys
		595					600					605			
Lys	Asn	Gln	Cys	Pro	Lys	Glu	Leu	Pro	Cys	Gly	His	Arg	Cys	Lys	Glu
	610					615					620				
Met	Cys	His	Pro	Gly	Glu	Cys	Pro	Phe	Asn	Cys	Asn	Gln	Lys	Val	Lys
625					630					635					640
Leu	Arg	Cys	Pro	Cys	Lys	Arg	He	Lys	Lys	Glu	Leu	Gln	Cys	Asn	Lys
				645					650					655	
Val	Arg	Glu	Asn	Gln	Val	Ser	Île	Glu	Cys	Asp	Thr	Thr	Cys	Lys	Glu
			660					665					670		
Met	Lys	Arg	Lys	Ala	Ser	Glu	lle	Lys	Glu	Ala	G]u	Ala	Lys	Ala	Ala
		675					680					685			
Leu	Glu	Glu	Glu	Lys	Arg	Arg	Gln	Gln	Ala	Glu	Leu	Glu	Ala	Phe	Glu
	690					695					700				
Asn	Arg	Leu	Lys	Gly	Arg	Arg	Lys	Lys	Asn	Arg	Lys	Arg	Asp	Glu	Val
705					710					715					720
Ala	Val	Glu	Leu	Ser	Leu	Trp	Gln	Lys	His	Lys	Tyr	Tyr	Leu	lle	
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<212> PRT
<213> Homo sapiens
<400> 4795
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                                 25
Leu His Phe Gln Ser Leu Leu Leu Cys Leu Leu Val Ser Arg Phe Cys
         35
                             40
                                                 45
Val Ser 11e Ser Leu Thr Cys 11e Ser Met Ser Ser Phe Val Leu Phe
                         55
Ser Met Ser Leu Gly Arg His His Leu Leu Pro Thr Lys Ser Pro Tyr
                     70
                                         75
Pro His Ala Tyr Thr Ser Leu Leu Ser Leu Pro Gln Phe Asn Pro Glu
                 85
                                     90
Leu Val Leu Val Ser Ala Gly Phe Asp Ala Ala Arg Gly Asp Pro Leu
            100
                                105
Gly Gly Cys Gln Val Ser Pro Glu Gly Tyr Ala His Leu Thr His Leu
        115
                            120
                                                 125
Leu Met Gly Leu Ala Ser Gly Arg 11e 11e Leu Ile Leu Glu Gly Gly
                        135
Tyr Asn Leu Thr Ser Ile Ser Glu Ser Met Ala Ala Cys Thr Arg Ser
                    150
                                        155
Leu Leu Gly Asp Pro Pro Pro Leu Leu Thr Leu Pro Arg Pro Pro Leu
                                    170
                165
                                                         175
Ser Gly Ala Leu Ala Ser lle Thr Glu Thr lle Gln Val His Arg Arg
                                185
Tyr Trp Arg Ser Leu Arg Val Met Lys Val Glu Asp Arg Glu Gly Pro
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                                                 205
Ser Ser Ser Lys Leu Val Thr Lys Lys Ala Pro Gln Pro Ala Lys Pro
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                        215
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<210> 4795

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Gly	Met	Gly	Lys	Val	Thr	Ser	Ala	Ser	Phe	Gly	Glu	Glu	Ser	Thr	Pro
				245					250					255	
Gly	Gln	Thr	Asn	Ser	Glu	Thr	Ala	Val	Val	Ala	Leu	Thr	Gln	Asp	Gln
			260					265					270		
Pro	Ser	Glu	Ala	Ala	Thr	Gly	Gly	Ala	Thr	Leu	Ala	Gln	Thr	He	Ser
		275					280					285			
Glu	Ala	Ala	Ile	Gly	Gly	Ala	Met	Leu	Gly	Gln	Thr	Thr	Ser	Glu	Glu
	290					295					300				
Ala	Val	Gly	Gly	Ala	Thr	Pro	Asp	Gln	Thr	Thr	Ser	Glu	Glu	Thr	Val
305					310					315					320
Gly	Gly	Ala	Пе	Leu	Asp	Gln	Thr	Thr	Ser	Glu	Asp	Ala	Va]	Gly	Gly
				325					330					335	
Ala	Thr	Leu	Gly	Gln	Thr	Thr	Ser	Glu	Glu	Ala	Va]	Gly	Gly	Ala	Thr
			340					345					350		
Leu	Ala	Gln	Thr	Thr	Ser	Glu	Ala	Ala	Met	Glu	Gly	Ala	Thr	Leu	Asp
		355					360					365			
Gln	Thr	Thr	Ser	Glu	Glu	Ala	Pro	Gly	Gly	Thr	Glu	Leu	Ile	Gln	Thr
	370					375					380				
Pro	Leu	Ala	Ser	Ser	Thr	Asp	His	Gln	Thr	Pro	Pro	Thr	Ser	Pro	Val
385					390					395					400
GIn	Gly	Thr	Thr	Pro	Gln	He	Ser	Pro	Ser	Thr	Leu	lle	Gly	Ser	Leu
				405					410					415	
Arg	Thr	Leu	Glu	Leu	Gly	Ser	Glu	Ser	Gln	Gly	Ala	Ser	Glu	Ser	Gln
			420					425					430		
Ala	Pro	Gly	Glu	Glu	Asn	Leu	Leu	Gly	Glu	Ala	Ala	Gly	Gly	Gln	Asp
		435					440					445			
Met	Ala	Asp	Ser	Met	Leu	Met	Gln	Gly	Ser	Arg	Gly	Leu	Thr	Asp	Gln
	450					455					460				
Ala	He	Phe	Tyr	Ala	Val	Thr	Pro	Leu	Pro	Trp	Cys	Pro	His	Leu	Val
465					470					475					480
Ala	Val	Cys	Pro	He	Pro	Ala	Ala	Gly	Leu	Asp	Val	Thr	Gln	Pro	Cys
				485					490					495	
Gly	Asp	Cys	Gly	Thr	Пе	Gln	Glu	Asn	Trp	Val	Cys	Leu	Ser	Cys	Tyr
			500					505					510		

Gln Val Tyr Cys Gly Arg Tyr Ile Asn Gly His Met Leu Gln His His
515
520
525
Gly Asn Ser Gly His Pro Leu Val Leu Ser Tyr Ile Asp Leu Ser Ala
530
535
540
Trp Cys Tyr Tyr Cys Gln Ala Tyr Val His His Gln Ala Leu Leu Asp
545
550
560

Val Lys Asn Tle Ala His Gln Asn Lys Phe Gly Glu Asp Met Pro His
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Pro His

<210> 4796

<211> 108

<212> PRT

<213> Homo sapiens

<400> 4796

Met Gly Thr Asp Glu Asp Cys Tyr Gln Glu Arg Gly Asp Trp Asp Gln

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20 25 30

Gln Asp Arg Ser Ala Phe Glu Lys Ser Glu Leu Trp Tyr Gln Ile Ala 35 40 45

Ser Trp Ile Cys Glu Thr Gly Val Trp Gly Lys Glu Arg Pro Trp Leu 50 55 60

Lys Asn Val Ser Phe Gly Asn Val Asn lle Lys Pro Gln Asp Trp Val 65 70 75 80

Thr Trp Pro Ser Arg Gly Val Gly Thr Glu Lys Arg Pro Trp Pro Glu

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Pro Trp Gly His Leu His Leu Gly Glu Lys Gly Met 100 105

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25

Leu Gly Thr Arg Trp Leu Gly Thr Arg Gly Ser Ala Arg Tyr His Tyr

30

20

35 40 Asp Gly Ile Cys Ile Lys Lys Ser Ser Phe Phe Tyr Ala Gln Tyr Cys 55 Cys Leu 11e Gly Glu Lys Arg Tyr His Ser Gly Asp Ala I1e Ala Phe 75 70 Glu Lys Ser Thr Asn Tyr Asn Ser Ile Ile Gln Gln Glu Ala Thr Cys 90 85 Glu Asp His Ser Pro Met Lys Thr Asp Pro Val Gly Ser Pro Leu Ser 100 105 110 Glu Phe Arg Arg Cys Pro Phe Leu Glu Gln Glu Leu Ala Lys Lys Tyr 115 120 125 Ser Cys Asn Met Met Ala Phe Leu Ala Asp Glu Tyr Cys Asn Tyr Cys 135 140 Arg Asp lle Leu Arg Asn Val Arg Asn 145 150

<210> 4799

<211> 787

<212> PRT

<213> Homo sapiens

<400> 4799

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Gly Ser Glu Glu Ser Ala Arg Asp Pro Gln Val Pro Pro Pro Glu Glu 20 25 30

Glu Ser Gly Asp Cys Ala Arg Ser Leu Glu Ala Val Pro Lys Lys Leu 35 40 45

Cys Gly Tyr Leu Ser Lys Phe Gly Gly Lys Gly Pro 11e Arg Gly Trp
50 55 60

Lys Ser Arg Trp Phe Phe Tyr Asp Glu Arg Lys Cys Gln Leu Tyr Tyr
65 70 75 80

Ser Arg Thr Ala Gln Asp Ala Asn Pro Leu Asp Ser Val Asp Leu Ser 85 90 95

Ser Ala Val Phe Asp Cys Lys Ala Asp Ala Glu Glu Gly Ile Phe Glu

			100					105					110		
He	Lys	Thr	Pro	Ser	Arg	Val	lle	Thr	Leu	Lys	Ala	Ala	Thr	Lys	Gln
		115					120					125			
Ala	Met	Leu	Tyr	Trp	Leu	Gln	Gln	Leu	Gln	Met	Lys	Arg	Trp	Glu	Phe
	130					135					140				
His	Asn	Ser	Pro	Pro	Ala	Pro	Pro	Ala	Thr	Pro	Asp	Лlа	Ala	Leu	Ala
145					150					155					160
G1 y	Asn	Gly	Pro	Val	Leu	His	Leu	Glu	Leu	Gly	Gln	Glu	Glu	Ala	Glu
				165					170					175	
Leu	Glu	Glu	Phe	Leu	Cys	Pro	Val	Lys	Thr	Pro	Pro	Gly	Leu	Val	Gly
			180					185					190		
Val	Ala	Ala	Ala	Leu	Gln	Pro	Phe	Pro	Ala	Leu	Gln	Asn	He	Ser	Leu
		195					200					205			
Lys	His	Leu	Gly	Thr	Glu	Пе	Glń	Asn	Thr	Met	His	Asn	Пе	Arg	Gly
	210					215					220				
Asn	Lys	Gln	Ala	Gln	Gly	Thr	Gly	His	Glu	Pro	Pro	Gly	Glu	Asp	Ser
225					230					235					240
Pro	Gln	Ser	Gly	Glu	Pro	Gln	Arg	Glu	Glu	Gln	Pro	Leu	Ala	Ser	Asp
				245					250					255	
Ala	Ser	Thr	Pro	Gly	Arg	Glu	Pro	Glu	Asp	Ser	Pro	Lys	Pro	Ala	Pro
			260					265					270		
Lys	Pro	Ser	Leu	Thr	lle	Ser	Phe	Ala	Gln	Lys	Ala	Lys	Arg	Gln	Asn
		275					280					285			
Asn	Thr	Phe	Pro	Phe	Phe	Ser	Glu	Gly	He	Thr	Arg	Asn	Arg	Thr	Ala
	290					295					300				
Gln	Glu	Lys	Val	Ala	Ala	Leu	Glu	Gln	Gln	Val	Leu	Met	Leu	Thr	Lys
305					310					315					320
Glu	Leu	Lys	Ser	Gln	Lys	Glu	Leu	Val	Lys	He	Leu	His	Lys	Ala	Leu
				325					330					335	
G1u	Ala	Ala	G1n	G1n	Glu	Lys	Arg	Ala	Ser	Ser	Ala	Tyr	Leu	Ala	Ala
			340					345					350		
Ala	Glu	Asp	Lys	Asp	Arg	Leu	Glu	Leu	Val	Arg	His	Lys	Val	Arg	G] n
		355					360					365			
He	Ala	Glu	Leu	Gly	Arg	Arg	Val	Glu	Ala	Leu	Glu	Gln	Glu	Arg	Glu
	370					375					380				Glu Leu

385					390					395					400
G1n	G1n	His	Val	Gln	Leu	Leu	Met	Asp	Lys	Asn	His	Ala	Lys	Gln	Gln
				405					410					415	
Val	He	Cys	Lys	Leu	Ser	Glu	Lys	Val	Thr	Gln	Asp	Phe	Thr	His	Pro
			420					425					430		
Pro	Asp	Gln	Ser	Pro	Leu	Arg	Pro	Asp	Ala	Ala	Asn	Arg	Лѕр	Phe	Leu
		435					440					445			
Ser	G1n	Gln	Gly	Lys	Ile	Glu	His	Leu	Lys	Asp	Asp	Met	Glu	Ala	Tyr
	450					455					460				
Arg	Thr	Gln	Asn	Cys	Phe	Leu	Asn	Ser	Glu	Ile	His	Gln	Val	Thr	Lys
465					470					475					480
He	Trp	Arg	Lys	Val	Ala	Glu	Lys	Glu	Lys	Ala	Leu	Leu	Thr	Lys	Cys
				485					490					495	
Ala	Tyr	Leu	Gln	Ala	Arg	Asn	Cys	G1n	Val	Glu	Ser	Lys	Tyr	Leu	Ala
			500					505					510		
Gly	Leu	Arg	Arg	Leu	Gln	Glu	Ala	Leu	Gly	Asp	Glu	Ala	Ser	Glu	Cys
		515					520					525			
Ser	Glu	Leu	Leu	Arg	Gln	Leu	Val	Gln	Glu	Ala	Leu	Gln	Trp	Glu	Ala
	530					535					540				
Gly	Glu	Ala	Ser	Ser	Asp	Ser	He	Glu	Leu	Ser	Pro	He	Ser	Lys	Tyr
545					550					555					560
Asp	Glu	Tyr	Gly	Phe	Leu	Thr	Val	Pro	Asp	Tyr	Glu	Val	Glu	Asp	Leu
				565					570					575	
Lys	Leu	Leu		Lys	lle	Gln	Ala		Glu	Ser	Arg	Ser	His	His	Leu
			580					585					590		
Leu	Gly	Leu	Glu	Ala	Val	Asp		Pro	Leu	Arg	Glu	Arg	Trp	Val	Ala
		595	_				600					605			
Leu		Asp	Leu	Val	Pro		Ala	Glu	Leu	Lys		Leu	Leu	Arg	Ala
0.1	610		_	0.1		615	15		., .		620	m			
	Val	Pro	Arg	Glu		Arg	Pro	Arg	Val		Arg	Trp	Leu	Val	
625		V 1	C.1		630		TI	D	C1	635	ar.	C1	61		640
Leu	Arg	vai	61n		Leu	HIS	Inr	Pro		Cys	lyr	GIN	G1u		Leu
C	Λ	C1-	C1	645	Λ	C1	112 -	D	650	Д1.	Δ	C1	11.	655	1
ser	Arg	61 y		ита	Arg	01 <b>u</b>	nis		ита	Ala	arg	61n	11e 670	GJU	ren
Acn	lov	Acr	660	The	Pho	Pro	Acr	665	Lve	Ніс	Pho	The	Cvs	Glv	Ser

Trp Ser Ser Leu Arg Gln Ser Thr Trp Gly Gly Gly His Pro Gly Ala Glu Leu Cys Pro Arg Ala Val Pro Ala Arg Thr Arg Trp Arg Gly Lys Pro Asp Leu Ala Thr Ser Pro Pro His Ser Leu Pro His Pro Trp Leu Ala Asp Pro Leu Glu Val Arg His Gly Pro Val Ala Gln Pro Trp Val Ser His His Wal Thr Leu Asp Met Ser Leu Pro Leu Ser Gly Pro Gln Phe Pro His Trp Asp Ile Val Cys Cys Lys Ala Ile Gly Trp Ala Thr Ser Ser <210> 4800 <211> 221 <212> PRT <213> Homo sapiens ⟨400⟩ 4800 Met Ser Gly Glu Ala Thr Val Leu Ala Tyr His Ala Pro Glu Glu Gln Glu Gly Leu Leu Val Val Lys Val Glu Glu Glu Asn Tyr Val Leu Asp Gln Asp Phe Gly Leu Gln Glu Asn Pro Trp Ser Gln Glu Val Phe Arg Gln Lys Phe Arg Gln Phe Ser Tyr Ser Asp Ser Thr Gly Pro Arg Glu Ala Leu Ser Arg Leu Arg Glu Leu Cys Cys Gln Trp Leu Arg Pro Glu Val His Ser Lys Glu Gln Ile Leu Glu Leu Leu Met Leu Glu Gln Phe 

Leu Ala Ile Leu Pro Glu Glu Leu Gln Ala Trp Leu Arg Glu His Arg

105 110 100 Pro Glu Asn Gly Glu Glu Ala Val Thr Met Leu Glu Glu Leu Glu Lys 120 125 Glu Leu Glu Glu Pro Arg Gln Gln Asp Thr Thr His Gly Gln Glu Met 135 140 Phe Trp Gln Glu Met Thr Ser Thr Gly Ala Leu Lys Ser Leu Ser Leu 155 150 Asn Ser Pro Val Gln Pro Leu Glu Asn Gln Cys Lys Thr Glu Thr Gln 170 175 165 Glu Ser Gln Ala Phe Gln Glu Arg Asp Gly Val Ser Leu Cys His Pro 180 185 Gly Trp Ser Ala Val Val Gln Pro Gln Leu Thr Ala Val Ala Leu Asn 200 Pro Trp Val Lys Val Ile Leu Leu Pro Gln Pro Pro Glu 210 215 220

<210> 4801

<211> 1043

<212> PRT

<213> Homo sapiens

<400> 4801

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Pro Glu Glu Leu Leu Ile Val Lys Leu Glu Glu Asp Ser Trp Gly Ser
20 25 30

Glu Ser Lys Leu Trp Glu Lys Asp Arg Gly Ser Val Ser Gly Pro Glu 35 40 45

Ala Ser Arg Gln Arg Phe Arg Gln Phe Gln Tyr Arg Asp Ala Ala Gly
50 55 60

Pro His Glu Ala Phe Ser Gln Leu Trp Ala Leu Cys Cys Arg Trp Leu 65 70 75 80

Arg Pro Glu 11e Arg Leu Lys Glu Gln 11e Leu Glu Leu Leu Val Leu 85 90 95

Glu Gln Phe Leu Thr lle Leu Pro Arg Glu Val Gln Thr Trp Val Gln

			100					105					110		
Ala	Arg	His	Pro	Glu	Ser	Gly	Glu	Glu	Ala	Val	Ala	Leu	Val	Glu	Asp
		115					120					125			
Trp	His	Arg	G1u	Thr	Arg	Thr	Ala	Gly	Gln	Ser	Gly	Leu	Glu	Leu	His
	130					135					140				
Thr	Glu	Glu	Thr	Arg	Pro	Leu	Lys	Thr	G] y	Glu	Glu	Ala	Gln	Ser	Phe
145					150					155					160
Gln	Leu	Gln	Pro	Val	Asp	Pro	Trp	Pro	Glu	Gly	Gln	Ser	Gln	Lys	Lys
				165					170					175	
Gly	Val	Lys	Asn	Thr	Cys	Pro	Asp	Leu	Pro	Asn	His	Leu	Asn	Ala	Glu
			180					185					190		
Val	Ala	Pro	Gln	Pro	Leu	Lys	Glu	Ser	Ala	Val	Leu	Thr	Pro	Arg	Val
		195					200					205			
Pro	Thr	Leu	Pro	Lys	Met	Gly	Ser	Val	Gly	Asp	Trp	Glu	Val	Thr	Ala
	210					215					220				
Glu	Ser	Gln	Glu	Ala	Leu	Gly	Pro	Gly	Lys	His	Ala	Glu	Lys	Glu	Leu
225					230					235					240
Cys	Lys	Asp	Pro	Pro	Gly	Asp	Asp	Cys	Gly	Asn	Ser	Val	Cys	Leu	Gly
				245					250					255	
Val	Pro	Val	Ser	Lys	Pro	Ser	Asn	Thr	Ser	Glu	Lys	Glu	Gln	Gly	Pro
			260					265					270		
Glu	Phe	Trp	Gly	Leu	Ser	Leu	Ile	Asn	Ser	Gly	Lys	Arg	Ser	Thr	Ala
		275					280					285			
Asp		Ser	Leu	Asp	Asn	Glu	Pro	Ala	Gln	Ala		Thr	Trp	Arg	Asp
_	290		_			295	_		_		300				
	Arg	Ala	Trp	Glu		Gln		Gln	Trp			Glu	Asp	Met	
305										315		<b></b>	<b>1</b> 51	,	320
Val	Ser	GIy	Val		Trp	Gly	Tyr	Glu		Thr	Lys	Thr	Phe		Ala
			61	325	n	101		<b>61</b>	330	,		TO I	0	335	61
He	Leu	Ser		Ser	Pro	Phe	Ser		Lys	Leu	Arg	Inr		HIS	GIN
			340					345					350		
Asn	Arg	Gln	Val	Tyr	Arg	Ala	Ile	Ala	Glu	Gln	Leu	Arg	Ala	Arg	Gly
		355		•	_		360					365			
Phe	Leu	Arg	Thr	Leu	Glu	Gln		Arg	Tyr	Arg	Val	Lys	Asn	Leu	Leu
	370					375					380				

Arg	Asn	Tyr	Arg	Lys	Ala	Lys	Ser	Ser	His	Pro	Pro	Gly	Thr	Cys	Pro
385					390					395					400
Phe	Tyr	Glu	Glu	Leu	Glu	Ala	Leu	Val	Arg	Ala	Arg	Thr	Ala	lle	Arg
				405					410					415	
Ala	Thr	Asp	Gly	Pro	Gly	G1u	Ala	Val	Ala	Leu	Pro	Arg	Leu	Gly	Asp
			420					425					430		
Ser	Asp	Ala	Glu	Met	Asp	Glu	Gln	Glu	Glu	Gly	Gly	Trp	Asp	Pro	Glu
		435					440					445			
Glu	Met	Ala	Glu	Asp	Cys	Asn	Gly	Ala	Gly	Leu	Val	Asn	Val	Glu	Ser
	450					455					460				
Thr	Gln	Gly	Pro	Arg	Ile	Ala	Gly	Ala	Pro	Ala	Leu	Phe	Gln	Ser	Arg
465					470					475					480
He	Ala	G]y	Val	His	Trp	Gly	Tyr	Glu	Glu	Thr	Lys	Ala	Phe	Leu	Ala
				485					490					495	
He	Leu	Ser	G] u	Ser	Pro	Phe	Ser	Glu	Lys	Leu	Arg	Thr	Cys	His	Gln
			500					505					510		
Asn	Ser	Gln	Val	Tyr	Arg	Ala	lle	Ala	Glu	Arg	Leu		Ala	Leu	Gly
		515					520					525			
Phe	Leu	Arg	Thr	Leu	Glu	Gln	Cys	Arg	Tyr	Arg		Lys	Asn	Leu	Leu
	530					535					540				
Arg	Ser	Tyr	Arg	Lys		Lys	Ser	Ser	His		Pro	Gly	Thr	Cys	
545					550					555					560
Phe	Tyr	Glu	Glu		Asp	Ser	Leu	Met			Arg	Ala	Ala		Arg
				565					570					575	0.1
Ala	Met	Gly		Val	Arg	Glu	Ala	Ala	Gly	Leu	Pro	Arg		Gly	Gln
			580					585			0.1	0.1	590		
Ser	Ser		Glu	Thr	Asp	Ala		Glu	Ala	Trp	Gly		Val	Ala	Asn
0.1		595	1, 1		n	6	600			D	,	605	D	Α	M
Glu		Ala	Val	Lys	Pro			Leu	Cys	Pro			Pro	Asp	Met
0.1	610	61				615		C1		C1	620		C1	C1	Δ
_	Phe	Glu	Met	Arg		Glu	Asp	Glu	Asp			Ser	61u	Gin	
625	DI	0.1	0.1		630	61	• •		C	635		D	ті .	C1	640
He	Phe	Glu	Gly		Pro	Gly	Лlа	Leu			Cys	Pro	ınr		
17 7	C	C 1	D	645	Δ	т	C1	C1	650		C1.	Λ - ·	C1	655	
val	Cys	GIn		Leu	лѕр	ırp	61 y	Glu		ser	GIU	ASN			010
			660					665					670		

Asp	Glu	Gly	Gln	Trp	Gly	Asn	Pro	Ser	Gln	Glu	Gln	Trp	Gln	Glu	Ser
		675					680					685			
Ser	Ser	Glu	Glu	Asp	Leu	G1u	Lys	Leu	lle	Asp	His	Gln	G1 y	Leu	Tyr
	690					695					700				
Leu	Лlа	Glu	Lys	Pro	Tyr	Lys	Cys	Asp	Thr	Cys	Met	Lys	Ser	Phe	Ser
705					710					715					720
Arg	Ser	Ser	His	Phe	lle	Ala	His	Gln	Arg	lle	His	Thr	Gly	Glu	Lys
				725					730					735	
Pro	Tyr	Lys	Arg	Leu	Glu	Cys	Gly	Lys	Asn	Phe	Ser	Asp	Arg	Ser	Asn
			740					745					750		
Leu	Asn	Thr	His	Gln	Arg	Ile	His	Thr	Gly	Glu	Lys	Pro	Tyr	Lys	Cys
		755					760					765			
Leu	Glu	Cys	Gly	Lys	Ser	Phe	Ser	Asp	His	Ser	Asn	Leu	lle	Thr	His
	770					775					780				
Gln	Arg	lle	His	Thr	Gly	Glu	Lys	Pro	Tyr	Lys	Cys	Gly	Glu	Cys	Trp
785					790					795					800
Lys	Ser	Phe	Asn	Gln	Ser	Ser	Asn	Leu	Leu	Lys	His	Gln	Arg	Ile	His
				805					810					815	
Leu	Gly	Gly	Asn	Pro	Asp	Gln	Cys	Ser	Glu	Pro	Gly	Gly	Asn	Phe	Ala
			820					825					830		
Gln	Ser	Pro	Ser	Phe	Ser	Ala	His	Trp	Arg	Asn	Ser	Thr	Glu	Glu	Thr
		835					840					845			
Ala	Pro	Glu	G1n	Pro	Gln	Ser	He	Ser	Lys	Asp	Leu	Asn	Ser	Pro	Gly
	850					855					860				
Pro	His	Ser	Thr	Asn	Ser	Gly	Glu	Lys	Leu	Tyr	Glu	Cys	Ser	Glu	Cys
865					870					875					880
Gly	Arg	Ser	Phe	Ser	Lys	Ser	Ser	Ala	Leu	He	Ser	His	Gln	Arg	lle
				885					890					895	
His	Thr	Gly	Glu	Lys	Pro	Tyr	Glu	Cys	Ala	Glu	Cys	Gly	Lys	Ser	Phe
			900					905					910		
Ser	Lys	Ser	Ser	Thr	Leu	Ala	Asn	His	Gln	Arg	Thr	His	Thr	Gly	Glu
		915					920					925			
Lys	Pro	Tyr	Lys	Cys	Val	Asp	Cys	Gly	Lys	Cys	Phe	Ser	Glu	Arg	Ser
	930					935					940				
Lys	Leu	He	Thr	His	Gln	Arg	Val	His	Thr	Gly	Glu	Lys	Pro	Tyr	Lys
945					950					955					960

Cys Leu Glu Cys Gly Lys Phe Phe Arg Asp Arg Ser Asn Leu Ile Thr 970 His Gln Arg lle His Thr Gly Glu Lys Pro Tyr Lys Cys Arg Glu Cys 980 985 990 Gly Lys Cys Phe Asn Gln Ser Ser Ser Leu lle Ile His Gln Arg Ile 1000 His Thr Gly Glu Lys Pro Tyr Lys Cys Thr Glu Cys Gly Lys Asp Phe 1015 1020 Asn Asn Ser Ser His Phe Ser Ala His Arg Arg Thr His Ala Gly Gly 1035 1040 1025 1030

<210> 4802

Lys Ala Ser

<211> 422

<212> PRT

<213> Homo sapiens

<400> 4802

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Ile Tyr Thr Leu Gly Tyr Ser Val Ser Leu Met Ser Leu Ala Thr Gly

		115					120					125			
Ser	He	lle	Leu	Cys	Leu	Phe	Arg	Lys	Leu	His	Cys	Thr	Arg	Asn	Tyr
	130					135					140				
He	His	Leu	Asn	Leu	Phe	Leu	Ser	Phe	Пe	Leu	Arg	Ala	He	Ser	Val
145					150					155					160
Leu	Val	Lys	Asp	Asp	Val	Leu	Tyr	Ser	Ser	Ser	Gly	Thr	Leu	His	Cys
				165					170					175	
Pro	Asp	Gln	Pro	Ser	Ser	Trp	Val	Gly	Cys	Lys	Leu	Ser	Leu	Val	Phe
			180					185					190		
Leu	Gln	Tyr	Cys	Ile	Met	Ala	Asn	Phe	Phe	Trp	Leu	Leu	Val	Glu	Gly
		195					200					205			
Leu	Tyr	Leu	His	Thr	Leu	Leu	Val	Ala	Met	Leu	Pro	Pro	Arg	Arg	Cys
	210					215					220				
Phe	Leu	Ala	Tyr	Leu	Leu	He	Gly	Trp	Gly	Leu	Pro	Thr	Val	Cys	lle
225					230					235					240
G1 y	Ala	Trp	Thr		Ala	Arg	Leu	Tyr	Leu	Glu	Asp	Thr	Gly		Trp
				245					250					255	
Asp	Thr	Asn	-	His	Ser	Val	Pro		Trp	Val	Ile	Arg		Pro	He
			260					265					270		
Leu	lle		lle	He	Val	Asn		Val	Leu	Phe	He		He	He	Arg
		275					280		_		0.1	285	_		0.1
He		Leu	GIn	Lys	Leu		Ser	Pro	Asp	Val		GIy	Asn	Asp	GIn
0	290	T	,		,	295	,	C .	т) .	1	300	1	11.	D	1
	61n	lyr	Lys	Arg	Leu	Ala	Lys	Ser	ınr		Leu	Leu	116	Pro	320
305	C1	V-1	Hi a	Т	310	Vol	Dho	A10	Vol	315	Dno	110	Sor	110	_
rne	СТУ	vai	1115	325	Met	vai	rne	МІА	330		110	116	261	335	
Sor	lve	Tyr	Gln		Leu	Phe	Glu	Leu			Glv	Ser	Phe		
561	Lys	1 9 1	340		i,cu	1 110	Olu	345	0,5	Leu	Oly	bei	350	0111	Oly
Leu	Val	Val			Leu	Tvr	Cvs		Leu	Asn	Ser	Glu		Gln	Cvs
,,,,,		355			500	• , -	360					365		,	-,-
Glu	Leu		Arg	Lvs	Trp	Arg	Ser	Arg	Cvs	Pro	Thr		Ser	Ala	Ser
	370		- 3	<i>y</i>	- ,-	375		J	•		380				
Arg		Tyr	Arg	Val	Cys	Gly	Ser	Ser	Phe	Ser		Asn	Gly	Ser	Glu
385	-		-		390					395					400
G1 v	Ala	Len	Gln	Phe	His	Aro	Glv	Ser	Arg	Ala	Gln	Ser	Phe	Leu	G1n

405 410 415

Thr Glu Thr Ser Val 11e 420

<210> 4803

<211> 310

<212> PRT

<213> Homo sapiens

<400> 4803

Met Pro Ser Ser Lys Pro Gly Ser Pro Ala Pro Gln Asp Pro Ser Pro 1 5 10 15

Ser Cys Arg Thr Cys Ser Asn Gln Val Gln Pro Gly His Leu Leu Leu 20 25 30

Pro Leu Thr Lys Ala Ser Leu Thr Gly Pro Ser Pro Pro Pro Ala Lys
35 40 45

Leu Gly Arg Ala Gln Gly Ala Pro Ser Pro Lys Gly Pro Leu Glu Ile 50 55 60

Gly Trp Ser Pro Asp Ala Gln Pro Leu Arg Leu Gly Glu Thr Phe Leu
65 70 75 80

Pro Lys Gly Val Ala Gln Leu Ser Arg Ala Ser Ser Ser Gly His Lys
85 90 95

Val Gly Phe Leu Gln Pro Trp Pro Pro His Pro Leu Leu Pro Gln Glu 100 105 110

Arg Val Pro Arg His Gln Arg Gln Cys Cys Pro Arg Ala Gly Pro Ala 115 120 125

Phe Gly Cys Leu Arg Gly Arg Pro Gly Gly Trp Pro Ala Thr Gly Ser 130 135 140

Gly Gly Arg Gln Gln Gly Arg Lys Met Gly His Pro Pro Val Ser Pro 145 150 155 160

Ser Ala Pro Ala Pro Ala Gly Thr Thr Ala lle Pro Gly Leu lle Pro 165 170 175

Asp Leu Val Ala Gly Thr Pro Trp Pro Arg Trp Ala Leu Ile Ala Gly 180 185 190

Ala Leu Ala Ala Gly Val Leu Leu Val Ser Cys Leu Leu Cys Ala Ala

		195					200					205			
Cys	Cys	Cys	Cys	Arg	Arg	His	Arg	Lys	Lys	Pro	Arg	Asp	Lys	Glu	Ser
	210					215					220				
Val	Gly	Leu	Gly	Ser	Ala	Arg	Gly	Thr	Thr	Thr	Thr	His	Leu	Val	Gln
225					230					235					240
Pro	Asp	Val	Asp	G1 y	Leu	Glu	Ser	Ser	Pro	Gly	Asp	Ala	Gln	Gln	Trp
				245					250					255	
Gly	Arg	Leu	Gln	Leu	Ser	Leu	Glu	Phe	Asp	Phe	Gly	Ser	Gln	Glu	Val
			260					265					270		
Lys	Gly	Pro	Ala	Ala	Gln	Asp	Gln	Arg	Phe	Cys	Glu	Phe	Pro	Glu	Arg
		275					280					285			
Val	Thr	Gly	Glu	Gly	Gln	Thr	Pro	Cys	Pro	Gly	Trp	Trp	Gly	Ala	Asp
	290					295					300				
	Ala	Gly	Ala	Leu											
305					310										
40.	0) 4	20.4													
	0> 48														
	1> 8'														
	2> Pl		aani	one											
\21	3> H	OHO	sapr	ens											
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			Ala	He	11e	Leu	Leu	Ala	Leu	Leu	Glv	Ala	Met	Ser	G1 y
1	0111	0.0		5					10		,			15	,
	Val	Ala	Glu	Asn	Ser	Pro	Pro	Gly	Thr	Ser	Val	His	Lys	Phe	Ser
			20					25					30		
Val	Lys	Leu	Ser	Ala	Ser	Leu	Ser	Pro	Val	He	Pro	Gly	Phe	Pro	Gln
		35					40					45			
lle	Va1	Asn	Ser	Asn	Pro	Leu	Thr	Glu	Ala	Phe	Arg	Val	Asn	Trp	Leu
	50					55					60				
Ser	Gly	Thr	Tyr	Phe	Glu	Val	Val	Thr	Thr	G1 y	Met	Glu	Gln	Leu	Asp
65					70					75					80
Phe	G1u	Thr	Gly	Pro	Asn	11e	Phe	Asp	Leu	Gln	He	Tyr	Val	Lys	Asp
				85					90					95	

Glu Val Gly Val Thr Asp Leu Gln Val Leu Thr Val Gln Val Thr Asp

			100					105					110		
Val	Asn	Glu	Pro	Pro	Gln	Phe	Gln	G1 y	Asn	Leu	Ala	Glu	Gly	Leu	His
		115					120					125			
Leu	Tyr	He	Val	Glu	Arg	Ala	Asn	Pro	Gly	Phe	He	Tyr	Gln	Val	Glu
	130					135					140				
Ala	Phe	Asp	Pro	Glu	Asp	Thr	Ser	Arg	Asn	lle	Pro	Leu	Ser	Tyr	Phe
145					150					155					160
Leu	lle	Ser	Pro	Pro	Lys	Ser	Phe	Arg	Met	Ser	Ala	Asn	Gly	Thr	Leu
				165					170					175	
Phe	Ser	Thr	Thr	Glu	Leu	Asp	Phe	Glu	Ala	Arg	His	Arg	Ser	Phe	His
			180					185					190		
Leu	He	Val	Glu	Val	Arg	Asp	Ser	Gly	Gly	Leu	Lys	Ala	Ser	Thr	Glu
		195					200					205			
Leu	Gln	Val	Asn	He	Val	Asn	Leu	Asn	Asp	Glu	Val	Pro	Arg	Phe	Thr
	210					215					220				
Ser	Pro	Thr	Arg	Val	Tyr	Thr	Val	Leu	Glu	Glu	Leu	Ser	Pro	Gly	Thr
225					230					235					240
He	Val	Ala	Asn	Ile	Thr	Ala	Glu	Asp	Pro	Asp	Asp	Glu	Gly	Phe	Pro
				245					250					255	
Ser	His	Leu	Leu	Tyr	Ser	Ile	Thr	Thr	Val	Ser	Lys	Tyr	Phe	Met	lle
			260					265					270		
Asn	Gln	Leu	Thr	Gly	Thr	He	Gln	Val	Ala	Gln	Arg	He	Asp	Arg	Asp
		275					280					285			
Ala	Gly	Glu	Leu	Arg	Gln		Pro	Thr	Пe	Ser	Leu	Glu	Val	Leu	Val
	290					295					300				
Lys	Asp	Arg	Pro	Tyr	Gly	Gly	Gln	G] u	Asn	Arg	Ile	Gln	Ile	Thr	Phe
305															320
He	Val	Glu	Asp		Asn	Asp	Asn	Pro		Thr	Cys	Gln	Lys		Thr
				325					330					335	
Phe	Ser	Пе		Val	Pro	Glu	Arg		Ala	Lys	G1 y	Thr	Leu	Leu	Leu
			340					345					350		
Asp	Leu		Lys	Phe	Cys	Phe		Asp	Asp	Ser	Glu		Pro	Asn	Asn
		355					360					365			
Arg		Asn	Phe	Thr	Met		Ser	G1 y	Val	Gly		Gly	Ser	Arg	Phe
,	370		Б		6.7	375	0.7	,	75. 18	., .	380		0.1		
611	Glo	Asn	Pro	Ala	GIV	Ser	GIV	VC	He	Val	leu	He	Glv	Asn	1 611

385					390					395					400
Asp	Tyr	Glu	Asn	Pro	Ser	Asn	Leu	Ala	Ala	Gly	Asn	Lys	Tyr	Thr	Val
				405					410					415	
11e	lle	Gln	Val	Gln	Asp	Val	Ala	Pro	Pro	Tyr	Tyr	Lys	Asn	Asn	Val
			420					425					430		
Tyr	Val	Tyr	He	Leu	Thr	Ser	Pro	Glu	Asn	Glu	Phe	Pro	Leu	lle	Phe
		435					440					445			
Asp	Arg	Pro	Ser	Tyr	Val	Phe	Asp	Val	Ser	Glu	Arg	Arg	Pro	Ala	Arg
	450					455					460				
Thr	Arg	Val	Gly	Gln	Val	Arg	Ala	Thr	Asp	Lys	Asp	Leu	Pro	Gln	Ser
465					470					475					480
Ser	Leu	Leu	Tyr	Ser	lle	Ser	Thr	Gly	Gly	Ala	Ser	Leu	Gln	Tyr	Pro
				485					490					495	
Asn	Val	Phe	Trp	He	Asn	Pro	Lys	Thr	Gly	Glu	Leu	Gln	Leu	Val	Thr
			500					505					510		
Lys	Val	Asp	Cys	Glu	Thr	Thr	Pro	He	Tyr	lle	Leu	Arg	He	Gln	Ala
		515					520					525			
Thr	Asn	Asn	Glu	Asp	Thr	Ser	Ser	Val	Thr	Val	Thr	Val	Asn	He	Leu
	530					535					540				
Glu	Glu	Asn	Asp	Glu	Lys	Pro	He	Cys	Thr	Pro	Asn	Ser	Tyr	Phe	
545					550					555					560
Ala	Leu	Pro	Val	Asp	Leu	Lys	Val	G1 y			He	Gln	Asn		Lys
				565					570	•				575	_
Leu	Thr	Cys		Asp	Leu	Asp	Ser			Arg	Ser	Phe	Arg	Tyr	Ser
			580					585		m)	D)		590		
He	Gly			Asn	Val	Asn					Phe		Pro	Asn	Ala
		595		<b>77.1</b>		Б						605		т	41.
Gly			Val	Thr	Arg			Leu	lhr	Ser			Asp	lyr	Ala
0.1	610			,		615		т.	1	1	620		Т	Val.	Tha
	Gly	Phe	Asp	Lys			Asp	lyr	Lys			vaj	Tyr	val	640
625					630		1	1	1	635		110	Lau	Vo.1	
Asp	Asp	Asn	Leu			Asp	Lys	Lys			Giu	мта	Leu	655	
TI	C1	ті	. W . 1	645		C	11-	1	650		D∞∽	. µ; ~	Dro		
ınr	ыу	inr			Leu	ser	116			116	. 110	111.5	Pro 670		1111
11.	11.	. TL	660 adt		. Dro	. A ~	- Dno	665 Ara		Thr	Tur	- Gla	Val		Aro

Lys Asn Val Tyr Ser Pro Ser Ala Trp Tyr Val Pro Phe Val Ile Thr Leu Gly Ser Ile Leu Leu Leu Gly Leu Leu Val Tyr Leu Val Val Leu Leu Ala Lys Ala Ile His Arg His Cys Pro Cys Lys Thr Gly Lys Asn Lys Glu Pro Leu Thr Lys Lys Gly Glu Thr Lys Thr Ala Glu Arg Asp Val Val Val Glu Thr Ile Gln Met Asn Thr Ile Phe Asp Gly Glu Ala lle Asp Pro Val Thr Gly Glu Thr Tyr Glu Leu Asn Ser Lys Thr Gly Ala Arg Lys Trp Lys Asp Pro Leu Thr Gln Met Pro Lys Trp Lys Glu Ser Ser His Gln Gly Ala Ala Pro Arg Arg Val Thr Ala Gly Glu Gly Met Gly Ser Leu Arg Ser Ala Asn Trp Glu Glu Asp Glu Leu Ser Gly Lys Ala Trp Ala Glu Asp Ala Asp Leu Gly Ser Arg Asn Glu Gly Gly Lys Leu Gly Asn Pro Lys Asn Arg Asn Pro Ala Phe Met Asn Arg Ala Tyr Pro Lys Pro His Pro Gly Lys 

<210> 4805

<211> 530

<212> PRT

<213> Homo sapiens

<400> 4805

Met Glu Gly Pro Leu Thr Pro Pro Pro Leu Gln Gly Gly Gly Ala Ala

1 5 10 15

Ala Val Pro Glu Pro Gly Ala Arg Gln His Pro Gly His Glu Thr Ala

Ala	Gln		Tyr	Ser	Ala	Arg		Leu	Gln	Ala	G1 y		Glu	Pro	Glu
		35					40					45			
Ser	Asp	Phe	Leu	He	Leu	Pro	Gly	Phe	He	Asp	Phe	He	Ala	Asp	Glu
	50					55					60				
Val	Asp	Leu	Thr	Ser	Ala	Leu	Thr	Arg	Lys	He	Thr	Leu	Lys	Thr	Pro
65					70					75					80
Leu	He	Ser	Ser	Pro	Met	Asp	Thr	Val	Thr	Glu	Ala	Asp	Met	Ala	Phe
				85					90					95	
Ala	Met	Ala	Leu	Met	Gly	Gly	He	G1 y	Phe	lle	His	His	Asn	Cys	Thr
			100					105					110		
Pro	Glu	Phe	Gln	Ala	Asn	Glu	Val	Arg	Lys	Val	Lys	Lys	Phe	Glu	Gln
		115					120					125			
Gly	Phe	He	Thr	Asp	Pro	Val	Val	Leu	Ser	Pro	Ser	His	Thr	Val	Gly
	130					135					140				
Asp	Val	Leu	Glu	Ala	Lys	Met	Arg	His	Gly	Phe	Ser	Gly	He	Pro	lle
145					150					155					160
Thr	Glu	Thr	G1y	Thr	Met	G1 y	Ser	Lys	Leu	Val	Gly	He	Val	Thr	Ser
				165					170					175	
Arg	Asp	He	Asp		Leu	Ala	Glu	Lvs	Asp	His	Thr	Thr	Leu	Leu	Ser
J	•		180					185	-				190		
Glu	Val	Met		Pro	Arg	He	Glu		Val	Val	Ala	Pro		Glv	Val
		195			0		200					205		j	
Thr	Leu		Glu	Ala	Asn	Glu		Leu	Gln	Arg	Ser		Lvs	Glv	Lvs
1111	210	D, S	010	7110	71011	215		1.00	0111	8	220	13,13	.5,5	92,	23, 4
Lou		He	Val	Asn	Asp		Asn	Glu	Leu	Val		He	He	Ala	Arø
225		110	, 01	пон	•	0,5	-	014	120.0						240
		Lou	Lve	Lve	Asn			Tyr	Pro	2.50				Asn	
1 111	лър	Leu	Lys	245	11.511	Mg	мэр	1 , 1	250		ATG	001	Lys	255	501
C1	1	C15	Lau		Cys	Cly	Ala	A10			The	Ara	C111		Aco
6111	Lys	GIII		reu	Cys	Gly	MIA		vai	Uly	1111	ΛIG	270	лър	nsp
,	т		260	Δ	1	1	T1	265	A 1	C1	V., 1	Λ		11.	Vol
Lys	iyr		Leu	Asp	Leu	Leu			AIa	61 y	vai			116	val
		275	C	6.3	03		280		т	C1	т э	285		V. 1	
Leu	Asp	Ser	Ser	GIn	Gly	Asn	Ser	Val	lyr	61n	Пe	Ala	Met	val	HIS

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Tyr Ile Lys Gln Lys Tyr Pro His Leu Gln Val Ile Gly Gly Asn Val
305
                    310
                                        315
Val Thr Ala Ala Gln Ala Lys Asn Leu lle Asp Ala Gly Val Asp Gly
                325
                                    330
Leu Arg Val Gly Met Gly Cys Gly Ser Ile Cys Ile Thr Gln Glu Val
                                345
Met Ala Cys Gly Arg Pro Gln Gly Thr Ala Val Tyr Lys Val Ala Glu
                            360
Tyr Ala Arg Arg Phe Gly Val Pro Ile Ile Ala Asp Gly Gly Ile Gln
                                            380
                        375
Thr Val Gly His Val Val Lys Ala Leu Ala Leu Gly Ala Ser Thr Val
                    390
                                        395
Met Met Gly Ser Leu Leu Ala Ala Thr Thr Glu Ala Pro Gly Glu Tyr
                405
                                    410
                                                         415
Phe Phe Ser Asp Gly Val Arg Leu Lys Lys Tyr Arg Gly Met Gly Ser
            420
                                425
Leu Asp Ala Met Glu Lys Ser Ser Ser Ser Gln Lys Arg Tyr Phe Ser
                            440
                                                445
Glu Gly Asp Lys Val Lys Ile Ala Gln Gly Val Ser Gly Ser Ile Gln
    450
                        455
Asp Lys Gly Ser Ile Gln Lys Phe Val Pro Tyr Leu Ile Ala Gly Ile
                                        475
                    470
Gln His Gly Cys Gln Asp lle Gly Ala Arg Ser Leu Ser Val Leu Arg
                                    490
                485
                                                         495
Ser Met Met Tyr Ser Gly Glu Leu Lys Phe Glu Lys Arg Thr Met Ser
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                                505
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Ala Gln Ile Glu Gly Gly Val His Gly Leu His Ser Tyr Glu Lys Arg
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                                                 525
Leu Tyr
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<210> 4806

<211> 134

<212> PRT

<213> Homo sapiens

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Tyr Arg Asp Val Met Leu Glu Asn Tyr Arg Asn Leu Phe Ser Val Gly

Leu Thr Val Cys Lys Pro Gly Leu Ile Thr Cys Leu Glu Gln Arg Lys

45

60

40

55

35

Glu	Pro	Trp	Asn	Val	Lys	Arg	Gln	Glu	Ala	Ala	Asp	Gly	His	Pro	Ala
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Met	Ser	Ser	His	Phe 85	Thr	Gln	Asp	Leu	Leu 90	Pro	Glu	Gln	Gly	11e 95	G1n
Asp	Ala	Phe	Pro	Lys	Arg	lle	Leu	Arg 105	G1 y	Tyr	Gly	Asn	Cys 110	Gly	Leu
Asp	Asn	Leu 115		Leu	Arg	Lys	Asp 120		Glu	Ser	Leu	Asp 125	G1u	Cys	Lys
Leu	G1n 130	Lys	Asp	Tyr	Asn	Gly 135	Leu	Asn	Gln	Cys	Ser 140	Ser	Thr	Thr	His
Ser 145	Lys	Ile	Phe	Gln	Tyr 150	Asn	Lys	Tyr	Val	Lys 155	Ile	Phe	Asp	Asn	Phe 160
Ser	Asn	Leu	His	Arg 165	Arg	Asn	11e	Ser	Asn 170	Thr	Gly	Glu	Lys	Pro 175	Phe
Lys	Cys	G1n	Glu 180	Cys	Gly	Lys	Ser	Phe 185	Gln	Met	Leu	Ser	Phe 190	Leu	Thr
Glu	His	Gln 195	Lys	Ile	His	Thr	Gl y 200	Lys	Lys	Phe	Gln	Lys 205	Cys	Gly	Glu
Cys	Gly 210	Lys	Thr	Phe	Ile	Gln 215	Cys	Ser	His	Phe	Thr 220	Glu	Pro	Glu	Asn
Ile 225	Asp	Thr	Gly	Glu	Lys 230	Pro	Tyr	Lys	Cys	Gln 235	Glu	Cys	Asn	Asn	Val 240
He	Lys	Thr	Cys	Ser 245	Val	Leu	Thr	Lys	Asn 250	Arg	He	Tyr	Ala	Gly 255	Gly
Glu	His	Tyr	Arg 260	Cys	Glu	Glu	Phe	Gly 265	Lys	Val	Phe	Asn	Gln 270	Cys	Ser
His	Leu	Thr 275	Glu	His	Glu	His	Gly 280	Thr	Glu	Glu	Lys	Pro 285	Phe	Lys	Cys
Glu	Glu 290	Cys	Asp	Ser	lle	Phe 295	Lys	Trp	Phe	Ser	Asp 300	Leu	Thr	Lys	His
Lys 305	Arg	lle	His	Thr	Gly 310	Glu	Lys	Pro	Tyr	Lys 315	Cys	Asp	Glu	Cys	61y 320
Lys	Ala	Tyr	Thr	Gln 325	Ser	Ser	His	Leu	Ser 330	Glu	His	Arg	Arg	11e 335	His
Thr	Gly	Glu	Lys	Pro	Tyr	Gln	Cys	Glu	Glu	Cys	Gly	Lys	Val	Phe	Arg

Thr Cys Ser Ser Leu Ser Asn His Lys Arg Thr His Ser Glu Glu Lys Pro Tyr Thr Cys Glu Glu Cys Gly Asn Ile Phe Lys Gln Leu Ser Asp Leu Thr Lys His Lys Lys Thr His Thr Gly Glu Lys Pro Tyr Lys Cys Asp Glu Cys Gly Lys Asn Phe Thr Gln Ser Ser Asn Leu Ile Val His Lys Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Glu Glu Cys Gly Arg Val Phe Met Trp Phe Ser Asp Ile Thr Lys His Lys Lys Thr His Thr Gly Glu Lys Pro Tyr Lys Cys Asp Glu Cys Gly Lys Asn Phe Thr Gln Ser Ser Asn Leu Ile Val His Lys Arg lle His Thr Gly Glu Lys Pro Tyr Lys Cys Glu Lys Cys Gly Lys Ala Phe Thr Gln Phe Ser His Leu Thr Val His Glu Ser Ile His Thr 

<210> 4808

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4808

 Met
 Val
 Ala
 Pro
 Arg
 Lys
 Ile
 Arg
 Trp
 Cys
 Val
 Glu
 Glu
 Leu
 Pro
 Ser

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 5
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 10
 10
 10
 15
 15
 15

 His
 Cys
 Ser
 Leu
 His
 Ala
 Phe
 Leu
 Ser
 Ala
 Arg
 Cys
 Glu
 Gln
 Gly
 Arg

 Pro
 Gly
 Thr
 Ala
 Asp
 Gly
 Leu
 His
 Leu
 Ser
 Asp
 Trp
 Thr
 Ala
 Thr
 Cys

 His
 Thr
 Phe
 Ile
 Glu
 Leu
 Ser
 Ile
 Ser
 Thr
 Ala
 Ala
 Val
 Leu
 Gly
 Val

 50
 55
 55
 60
 Frag
 Frag
 Frag
 Frag
 Glu
 Leu
 Rev
 Frag
 Frag

 Leu Leu Gly
 Ser Arg
 Asn Lys
 Lys
 Phe Arg
 Glu
 Ala Lys
 Val
 Leu Gln

 65
 70
 75
 80

 Gly
 Cys
 Arg
 Gln
 Val
 Ile Glu
 Pro
 Ser
 Phe Ile Glu
 His Leu Leu Ser

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 90
 90
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 Ala Lys
 Tyr
 Ser Tyr
 Leu Arg
 Tyr
 Leu Val

 100
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 105

<210> 4809

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Met Phe Val Trp Asn Gln Gly Ser Lys Tyr Ser Gly Ser Glu Val Leu
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Trp Cys Pro Leu His Trp Asn Ser Glu Glu Leu Ile Val Phe Trp Ser 20 25 30

Cys Val Leu Gln Val Leu Asp Trp His Arg Leu Ile Pro Leu Thr Trp
35 40 45

Ala Cys Met Ala Arg Gln Thr Pro His Leu Gly Glu Gln Arg Arg Thr
50 55 60

Thr Ala Ser Leu Leu Arg Lys Leu Thr Thr Ala Ser Asn Gly Gly Val 65 70 75 80

lle Glu Glu Leu Ser Cys Val Arg Ser Asn Asn Tyr Val Gln Glu Pro 85 90 95

Glu Cys Arg Arg Asn Leu Val Gln Cys Leu Leu Glu Lys Gln Gly Thr 100 105 110

Pro Val Val Gln Gly Ser Leu Glu Leu Glu Arg Val Met Ser Ser Leu 115 120 125

Leu Asp Met Gly Phe Ser Asn Ala His Ile Asn Glu Leu Leu Ser Val 130 135 140

Arg Arg Gly Ala Ser Leu Gln Gln Leu Leu Asp Ile Ile Ser Glu Phe 145 150 155 160

lle Leu Leu Gly Leu Asn Pro Glu Pro Val Cys Val Val Leu Lys Lys 165 170 175

Ser	Pro	Gln	Leu	Leu	Lys	Leu	Pro	He	Met	Gln	Met	Arg	Lys	Arg	Ser
			180					185					190		
Ser	Tyr	Leu	Gln	Lys	Leu	G1 y	Leu	Gly	Glu	Gly	Lys	Leu	Lys	Arg	Val
		195					200					205			
Leu	Tyr	Cys	Cys	Pro	Glu	lle	Phe	Thr	Met	Arg	Gln	Gln	Asp	He	Asn
	210					215					220				
Asp	Thr	Val	Arg	Leu	Leu	Lys	Glu	Lys	Cys	Leu	Phe	Thr	Val	Gln	Gln
225					230					235					240
Val	Thr	Lys	Ile	Leu	His	Ser	Cys	Pro	Ser	Val	Leu	Arg	Glu	Asp	Leu
				245					250					255	
Gly	Gln	Leu	Glu	Tyr	Lys	Phe	Gln	Tyr	Ala	Tyr	Phe	Arg	Met	Gly	Ile
			260					265					270		
Lys	His	Pro	Asp	lle	Val	Lys	Ser	Glu	Tyr	Leu	Gln	Tyr	Ser	Leu	Thr
		275					280					285			
Lys	Ile	Lys	Gln	Arg	His	He	Tyr	Leu	Glu	Arg	Leu	Gly	Arg	Tyr	Gln
	290					295					300				
Thr	Pro	Asp	Lys	Lys	Gly	Gln	Thr	Gln	He	Pro	Asn	Pro	Leu	Leu	Lys
305					310					315					320
Asp	Ile	Leu	Arg	Val	Ser	Glu	Ala	Glu	Phe	Leu	Ala	Arg	Thr	Ala	Cys
				325					330					335	
Thr	Ser	Val	Glu	Glu	Phe	Gln	Val	Phe	Lys	Lys	Leu	Leu	Ala	Arg	Glu
			340					345					350		
G1u	Glu	Glu	Ser	Glu	Ser	Ser	Thr	Ser	Asp	Asp	Lys	Arg	Ala	Ser	Leu
		355					360					365			
Asp	Glu	Asp	Glu	Asp	Asp	Asp	Asp	Glu	Glu	Asp	Asn	Asp	Glu	Asp	Asp
	370					375					380				
Asn	Asp	Glu	Asp	Asp	Asp	Asp	Glu	Asp	Asp	Asp	Glu	Ala	Glu	Asp	Asn
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Asp	Glu	Asp	Glu	Asp	Asp	Asp	Glu	Glu	Glu						
				405					410						

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<211> 340

<212> PRT

<213> Homo sapiens

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Glu	Glu	Ser	Phe	Gly	Pro	Gln	Pro	lle	Ser	Arg	Leu	G]u	G1n	Cys	Gly
			20					25					30		
lle	Asn	Ala	Asn	Asp	Val	Lys	Lys	Leu	Glu	Glu	Ala	Gly	Phe	His	Thr
		35					40					45			
Val	Glu	Ala	Val	Ala	Tyr	Ala	Pro	Lys	Lys	${\sf Glu}$	Leu	He	Asn	Ile	Lys
	50					55					60				
Gly	He	Ser	Glu	Ala	Lys	Ala	Asp	Lys	He	Leu	Thr	Glu	Ser	Arg	Ser
65					70					75					80
Val	Ala	Arg	Leu	Glu	Cys	Asn	Ser	Val	He	Leu	Val	Tyr	Cys	Thr	Leu
				85					90					95	
Arg	Leu	Ser	Gly	Ser	Ser	Asp	Ser	Pro	Ala	Ser	Ala	Ser	Arg	Val	Val
			100					105					110		
Gly	Thr	Thr	Gly	Gly	Ile	Glu	Thr	Gly	Ser	He	Thr	Glu	Met	Phe	Gly
		115					120					125			
Glu	Phe	Arg	Thr	Gly	Lys	Thr	Gln	Ile	Cys	His	Thr	Leu	Ala	Val	Thr
	130					135					140				
Cys	Gln	Leu	Pro	He	Asp	Arg	Gly	Gly	G1 y	Glu	Gly	Lys	Ala	Met	Tyr
145					150					155					160
Пe	Asp	Thr	Glu	Gly	Thr	Phe	Arg	Pro	Glu	Arg	Leu	Leu	Ala	Val	Ala
				165					170					175	
G] u	Arg	Tyr	Gly	Leu	Ser	Gly	Ser	Asp	Val	Leu	Asp	Asn	Val	Ala	Tyr
			180					185					190		
Ala	Arg	Ala	Phe	Asn	Thr	Asp	His	Gln	Thr	Gln	Leu	Leu	Tyr	Gln	Ala
		195					200					205			
Ser	Ala	Met	Met	Val	Glu	Ser	Arg	Tyr	Ala	Leu	Leu	lle	Va]	Asp	Ser
	210					215					220				
Ala	Thr	Ala	Leu	Tyr	Arg	Thr	Asp	Tyr	Ser	Gly	Arg	Gly	Glu	Leu	Ser
225					230					235					240
Ala	Arg	Gln	Met	His	Leu	Ala	Arg	Phe	Leu	Arg	Met	Leu	Leu	Arg	Leu
				245					250					255	
Ala	Asp	Glu	Phe	Gly	Val	Ala	Val	Val	He	Thr	Asn	Gln	Val	Val	Ala

Gln Val Asp Gly Ala Ala Met Phe Ala Ala Asp Pro Lys Lys Pro Ile Gly Gly Asn Ile Ile Ala His Ala Ser Thr Thr Arg Leu Tyr Leu Arg Lys Gly Arg Gly Glu Thr Arg Ile Cys Lys Ile Tyr Asp Ser Pro Cys Leu Pro Glu Ala Glu Ala Met Phe Ala Ile Asn Ala Asp Gly Val Gly Asp Ala Lys Asp <210> 4811 <211> 698 <212> PRT <213> Homo sapiens <400> 4811 Met Glu Thr Arg Gly Leu Ala Asp Ser Gly Gln Gly Ser Phe Thr Gly Gln Gly lle Ala Arg Phe Gly Arg lle Gln Lys Lys Ser Gln Pro Glu Lys Val Val Arg Ala Ala Ser Arg Gly Arg Pro Leu Ile Gly Trp Thr Gln Trp Cys Ala Glu Asp Gly Gly Asp Glu Ser Glu Met Ala Leu Ala Gly Ser Pro Gly Cys Ser Ser Gly Pro Gln Gly Arg Leu Ser Arg Leu lle Phe Leu Leu Arg Arg Trp Ala Ala Arg His Val His His Gln Asp Gln Gly Pro Asp Ser Phe Pro Asp Arg Phe Arg Gly Ala Glu Leu Lys Glu Val Ser Ser Gln Glu Ser Asn Ala Gln Ala Asn Val Gly Ser Gln

Glu	Pro	Ala	Asp	Arg	Gly	Arg	Ser	Ala	Trp	Pro	Leu	Ala	Lys	Cys	Asn
	130					135					140				
Thr	Asn	Thr	Ser	Asn	Asn	Thr	Glu	Glu	G]u	Lys	Lys	Thr	Lys	Lys	Lys
145					150					155					160
Asp	Ala	He	Val	Val	Asp	Pro	Ser	Ser	Asn	Leu	Tyr	Tyr	Arg	Trp	Leu
				165					170					175	
Thr	Ala	He	Ala	Leu	Pro	Val	Phe	His	Asn	Trp	Tyr	Leu	Leu	Ile	Cys
			180					185					190		
Arg	Ala	Cys	Phe	Asp	Glu	Leu	Gln	Ser	Glu	Tyr	Leu	Met	Leu	Trp	Leu
		195					200					205			
Val	Leu	Asp	Tyr	Ser	Ala	Asp	Val	Leu	Tyr	Val	Leu	Asp	Val	Leu	Val
	210					215					220				
Arg	Ala	Arg	Thr	Gly	Phe	Leu	Glu	Gln	Gly	Leu	Met	Val	Ser	Asp	Thr
225					230					235					240
Asn	Arg	Leu	Trp	Gln	His	Tyr	Lys	Thr	Thr	Thr	Gln	Phe	Lys	Leu	Asp
				245					250					255	
Val	Leu	Ser	Leu	Val	Pro	Thr	Asp	Leu	Ala	Tyr	Leu	Lys	Val	Gly	Thr
			260					265					270		
Asn	Tyr	Pro	Glu	Val	Arg	Phe	Asn	Arg	Leu	Leu	Lys	Phe	Ser	Arg	Leu
		275					280					285			
Phe	Glu	Phe	Phe	Asp	Arg	Thr	Glu	Thr	Arg	Thr	Asn	Tyr	Pro	Asn	Met
	290					295					300				
Phe	Arg	He	Gly	Asn	Leu	Val	Leu	Tyr	He	Leu	He	He	lle	His	Trp
305					310					315					320
Asn	Ala	Cys	He	Tyr	Phe	Ala	lle	Ser	Lys	Phe	He	Gly	Phe	Gly	Thr
				325					330					335	
Asp	Ser	Trp	Val	Tyr	Pro	Asn	lle	Ser	He	Pro	Glu	His	Gly	Arg	Leu
			340					345					350		
Ser	Arg	Lys	Tyr	lle	Tyr	Ser	Leu	Tyr	Trp	Ser	Thr	Leu	Thr	Leu	Thr
		355					360					365			
Thr	lle	Gly	Glu	Thr	Pro	Pro	Pro	Val	Lys	Asp	Glu	Glu	Tyr	Leu	Phe
	370	•				375					380				
Val	Va]	Val	Asp	Phe	Leu	Val	Gly	Val	Leu	He	Phe	Ala	Thr	He	Val
385					390					395					400
Gly	Asn	Val	Gly	Ser	Met	He	Ser	Asn	Met	Asn	Ala	Ser	Arg	Ala	Glu
				405					410					415	

Phe	Gln	Ala	Lys	lle	Asp	Ser	lle	Lys	Gln	Tyr	Met	Gln	Phe	Arg	Lys
			420					425					430		
Val	Thr	Lys	Asp	Leu	Glu	Thr	Arg	Val	He	Arg	Trp	Phe	Asp	Tyr	Leu
		435					440					445			
Trp	Ala	Asn	Lys	Lys	Thr	Val	Asp	Glu	Lys	Glu	Val	Leu	Lys	Ser	Leu
	450					455					460				
Pro	Asp	Lys	Leu	Lys	Ala	Glu	lle	Ala	11e	Asn	Val	His	Leu	Asp	Thr
465					470					475					480
Leu	Lys	Lys	Val	Arg	Ile	Phe	Gln	Asp	Cys	Glu	Ala	Gly	Leu	Leu	Val
				485					490					495	
Glu	Leu	Val	Leu	Lys	Leu	Arg	Pro	Thr	Val	Phe	Ser	Pro	Gly	Asp	Tyr
			500					505					510		
He	Cys	Lys	Lys	Gly	Asp	He	Gly	Lys	Glu	Met	Tyr	He	He	Asn	Glu
		515					520					525			
Gly	Lys	Leu	Ala	Val	Val	Ala	Asp	Asp	Gly	Val	Thr	Gln	Phe	Val	Val
	530					535					540				
Leu	Ser	Asp	Gly	Ser	Tyr	Phe	Gly	Glu	Ile	Ser	lle	Leu	Asn	lle	Lys
545					550					555					560
Gly	Ser	Lys	Ser	Gly	Asn	Arg	Arg	Thr	Ala	Asn	He	Arg	Ser	He	Gly
				565					570					575	
Tyr	Ser	Asp	Leu	Phe	Cys	Leu	Ser	Lys	Asp	Asp	Leu	Met	Glu	Ala	Leu
			580					585					590		
Thr	Glu	Tyr	Pro	Glu	Ala	Lys	Lys	Ala	Leu	Glu	Glu	Lys	Gly	Arg	Gln
		595					600					605			
He	Leu	Met	Lys	Asp	Asn	Leu	He	Asp	Glu	Glu	Leu	Ala	Arg	Ala	Gly
	610					615					620				
	Asp	Pro	Lys	Asp		Glu	Glu	Lys	Va]		Gln	Leu	Gly	Ser	
625					630					635					640
Leu	Asp	Thr	Leu		Thr	Arg	Phe	Ala		Leu	Leu	Ala	Glu		Asn
				645					650					655	
Ala	Thr	Gln		Lys	Met	Lys	Gln		Leu	Ser	Gln	Leu		Ser	GIn
			660					665				0.1	670		0.1
Val	Lys	-	Gly	Gly	Asp	Lys		Leu	Ala	Asp	G] y		Val	Pro	Gly
		675		<b></b>	6.1		680	0.7	e •			685			
Asp		Thr	Lys	Thr	GJu	Asp	Lys	GIn	Gln						
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<211> 544
<212> PRT
<213> Homo sapiens
<400> 4812
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Asn Arg Leu Asp Ser Ile Asp Pro Ala Leu Arg Arg Pro Gly Arg Phe
                                 25
Asp Arg Glu Phe Leu Phe Asn Leu Pro Asp Gln Lys Ala Arg Lys His
        35
                             40
                                                  45
lle Leu Gln lle His Thr Arg Asp Trp Asn Pro Lys Leu Ser Asp Ala
                         55
Phe Leu Gly Glu Leu Ala Glu Lys Cys Val Gly Tyr Cys Gly Ala Asp
                     70
                                         75
Ile Lys Ala Leu Cys Thr Glu Ala Ala Leu Ile Ala Leu Arg Arg Arg
                                     90
Tyr Pro Gln Ile Tyr Ala Ser Ser His Lys Leu Gln Leu Asp Val Ser
                                105
Ser Ile Val Leu Ser Ala Gln Asp Phe Tyr His Ala Met Gln Asn Ile
        115
                            120
                                                 125
Val Pro Ala Ser Gln Arg Ala Val Met Ser Ser Gly His Ala Leu Ser
    130
                        135
Pro lle lle Arg Pro Leu Leu Glu Arg Ser Phe Asn Asn Ile Leu Ala
                    150
                                        155
Val Leu Gln Lys Val Phe Pro His Ala Glu Ile Ser Gln Ser Asp Lys
                                     170
                                                         175
                165
Lys Glu Asp lle Glu Thr Leu Ile Leu Glu Asp Ser Glu Asp Glu Asn
                                185
Ala Leu Ser Ile Phe Glu Thr Asn Cys His Ser Gly Ser Pro Lys Lys
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        195
Gln Ser Ser Ser Ala Ala Ile His Lys Pro Tyr Leu His Phe Thr Met
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                                             220
    210
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<210> 4812

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Gly	Glu	Arg	Gly	Ser	Gly	G1n	Thr	Ser	His	Leu	Ala	Pro	Ala	Leu	Leu
				245					250					255	
His	Thr	Leu	Glu	Arg	Phe	Ser	Val	His	Arg	Leu	Asp	Leu	Pro	Ala	Leu
			260					265					270		
Tyr	Ser	Val	Ser	Ala	Lys	Thr	Pro	Glu	Glu	Ser	Cys	Ala	Gln	He	Phe
		275					280					285			
Arg	Glu	Ala	Arg	Arg	Thr	Val	Pro	Ser	He	Val	Tyr	Met	Pro	His	Ile
	290					295					300				
Gly	Asp	Trp	Trp	Glu	Ala	Val	Ser	Glu	Thr	Val	Arg	Ala	Thr	Phe	Leu
305					310					315					320
Thr	Leu	Leu	Gln	Asp	He	Pro	Ser	Phe	Ser	Pro	He	Phe	Leu	Leu	Ser
				325					330					335	
Thr	Ser	Glu	Thr	Met	Tyr	Ser	Glu	Leu	Pro	Glu	Glu	Val	Lys	Cys	He
			340					345					350		
Phe	Arg	He	Gln	Tyr	Glu	Glu	Val	Leu	Tyr	lle	Gln	Arg	Pro	Ile	Glu
		355					360					365			
Glu	Asp	Arg	Arg	Lys	Phe	Phe	Gln	Glu	Leu	Ile	Leu	Asn	Gln	Ala	Ser
	370					375					380				
Met	Ala	Pro	Pro	Arg	Arg	Lys	His	Ala	Ala	Leu	Cys	Ala	Met	Glu	Val
385					390					395					400
Leu	Pro	Leu	Ala	Leu	Pro	Ser	Pro	Pro	Arg	G]n	Leu	Ser	Glu	Ser	Glu
				405					410					415	
Lys	Ser	Arg	Met	Glu	Asp	Gln	Glu	Glu	Asn	Thr	Leu	Arg		Leu	Arg
			420					425					430		
Leu	Phe		Arg	Asp	Val	Thr		Arg	Leu	Ala	Thr		Lys	Arg	Phe
		435			_		440					445			
Asn		Phe	Ser	Lys	Pro		Asp	He	GIu	Glu		Ser	Asp	Tyr	Leu
	450					455		_			460	~ ~	<b></b>		
	Val	He	Lys	Glu		Met	Asp	Leu	Ser		Val	He	Thr	Ļys	
465					470					475	_	_			480
Asp	Lys	His	Asn		Leu	Thr	Ala	Lys		Phe	Leu	Lys	Asp		Asp
		0	6	485			0.1	T	490	Б				495 D	0.3
Leu	11e	Cys		Asn	Mla	Leu	GIu	Tyr	Asn	Pro	Asp	Lys		Pro	Gly
			500					505					510		

Asp Lys Ile Ile Arg His Arg Ala Cys Thr Leu Lys Asp Thr Ala His
515 520 525

Ala Ile Ile Ala Ala Glu Leu Asp Pro Glu Phe Asn Lys Leu Cys Glu
530 535 535

<210> 4813

<211> 334

<212> PRT

<213> Homo sapiens

<400> 4813

Met Val Gly Gln Gly Cys Ser Leu Glu Pro Arg Leu Asp Leu Arg Pro 1 5 10 15

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20 25 30

Glu Arg Gln Glu Gly Glu Arg Asn Gly Gly Ser Lys Glu Gly Lys Glu
35 40 45

Gly Gly Arg Gly Gly Ser Lys Thr Val Ile Pro Ile Pro Ile Ser Asp 50 55 60

Leu Glu Leu Ala Ser Thr Pro Val His Pro Cys Arg Gly Gly Pro Ser
65 70 75 80

Pro Gln Leu Leu Pro Arg Glu Tyr Gly Gly Gly Val Gly Ile Leu Trp 85 90 95

Leu Ser Ser Leu Pro Leu Leu Cys Arg Leu Met Leu Gly Phe Met Gly
100 105 110

Val Thr Ala Leu Leu Ser Met Trp Ile Ser Asn Thr Ala Thr Thr Ala 115 120 125

Met Met Val Pro lle Val Glu Ala lle Leu Gl<br/>n Gln Met Glu Ala Thr $130 \hspace{1.5cm} 135 \hspace{1.5cm} 140$ 

Ser Ala Ala Thr Glu Ala Gly Leu Glu Leu Val Asp Lys Gly Lys Ala 145 150 155 160

Lys Glu Leu Pro Gly Ser Gln Val 11e Phe Glu Gly Pro Thr Leu Gly
165 170 175

Gln Gln Glu Asp Gln Glu Arg Lys Arg Leu Cys Lys Ala Met Thr Leu

			180					185					190		
Cys	He	Cys	Tyr	Ala	Ala	Ser	Ile	Gly	Gly	Thr	Ala	Thr	Leu	Thr	Gly
		195					200					205			
Thr	Gly	Pro	Asn	Val	Val	Leu	Leu	Gly	Gln	Met	Asn	Glu	Leu	Phe	Pro
	210					215					220				
Asp	Ser	Lys	Asp	Leu	Val	Asn	Phe	Ala	Ser	Trp	Phe	Ala	Phe	Ala	Phe
225					230					235					240
Pro	Asn	Met	Leu	Val	Met	Leu	Leu	Phe	Ala	Trp	Leu	Trp	Leu	Gln	Phe
				245					250					255	
Val	Tyr	Met	Arg	Phe	Asn	Phe	Lys	Lys	Ser	Trp	Gly	Cys	Gly	Leu	Glu
			260					265					270		
Ser	Lys	Lys	Asn	Glu	Lys	Ala	Ala	Leu	Lys	Val	Leu	Gln	Glu	Glu	Tyr
		275					280					285			
Arg	Lys	Leu	Gly	Pro	Leu	Ser	Phe	Ala	Glu	Пе	Asn	Val	Leu	He	Cys
	290					295					300				
Phe	Phe	Leu	Leu	Val	He	Leu	Trp	Phe	Ser	Arg	Asp	Pro	Gly	Phe	Met
305					310					315					320
Pro	Gly	Trp	Leu	Thr	Val	Ala	Trp	Val	Glu	Gly	Glu	Thr	Lys		
				325					330						
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<21	1> 49	51													
<212	2> PI	RT													
<213	3> He	omo :	sapi	ens											
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 Met
 Asn
 Lys
 Ala
 Pro
 Gln
 Ser
 Thr
 Gly
 Pro
 Pro
 Pro
 Ala
 Pro
 Ser
 Pro

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 5
 1
 1
 1
 1
 15
 15

 Gly
 Leu
 Pro
 Gln
 Pro
 Ala
 Phe
 Pro
 Pro
 Gly
 Gln
 Thr
 Ala
 Pro
 Val

 Phe
 Ser
 Thr
 Pro
 Gln
 Ala
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 Pro
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 Ala
 Ala
 Ser

 Arg
 Val
 Gln
 Ser
 Ala
 Ala
 Pro
 Ala
 Arg
 Pro
 Gly
 Pro
 Ala
 Ala
 Leu
 Pro

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Pro	Val	Ser	Pro	Leu	Lys	Ala	Λla	Leu	Ser	Glu	Glu	Glu	Leu	Glu	Lys
				85					90					95	
Lys	Ser	Lys	Ala	He	He	Glu	Glu	Tyr	Leu	His	Leu	Asn	Asp	Met	Lys
			100					105					110		
Glu	Ala	Val	Gln	Cys	Val	Gln	Glu	Leu	Ala	Ser	Pro	Ser	Leu	Leu	Phe
		115					120					125			
lle	Phe	Val	Arg	His	Gly	Val	Glu	Ser	Thr	Leu	Glu	Arg	Ser	Ala	He
	130					135					140				
Ala	Arg	Glu	His	Met	Gly	Gln	Leu	Leu	His	Gln	Leu	Leu	Cys	Ala	Gly
145					150					155					160
His	Leu	Ser	Thr	Ala	Gln	Tyr	Tyr	Gln	Gly	Leu	Tyr	G] u	He	Leu	Glu
				165					170					175	
Leu	Ala	Glu	Λsp	Met	Glu	He	Asp	He	Pro	His	Val	Trp	Leu	Tyr	Leu
			180					185					190		
Ala	Glu		Val	Thr	Pro	Hle		Gln	G] u	G1 y	Gly	Val	Pro	Met	Gly
		195					200					205			
Glu		Phe	Arg	Glu	Ile		Lys	Pro	Leu	Arg		Leu	Gly	Lys	Ala
	210					215					220				0.1
	Ser	Leu	Leu	Leu		He	Leu	Gly	Leu		Cys	Lys	Ser	Met	Gly.
225					230		<b></b>		0.1	235	0.1			Tr	240
Pro	Lys	Lys	Val		Thr	Leu	Trp	Arg			GIy	Leu	Ser		Lys
61	131		n	245	C 1	C1		1.3	250		DL .	V 1	A 1	255	C1
Glu	Phe	Leu		GIU	61 y	GIn	Asp		GIY	Ala	Pne	Val		GIU	GIII
1	V - 1	C1	260	Tha	Lau	C1	C1	265	Com	C1.,	A10	Pro	270	Cln	Ara
Lys	vai	275		1111	Leu	оту		0.10		Glu	мта	285		OIII	Mg
Λla	Lou			Glu	Glu	Lou				ارم ا	Glu			Leu	Lys
МІа	290	110	261	Olu	010	295	поп	мв	0111	Leu	300	Lys	150.0	), C G	E, S
Glu		Ser	Ser	Asn	Gln		Val	Phe	Asn	Trn		Glu	Ala	Asn	Leu
305	01,	001	001		310	6				315					320
	Glu	Gln	Gln	He		Ser	Asn	Thr	Leu		Arg	Ala	Leu	Met	
				325					330		J			335	
Ala	Val	Cys	Tyr			He	He	Phe			Pro	Leu	Arg	Val	Asp
			340					345					350		
Val	Ala	Val	Leu	lvs	Ala	Arσ	Ala	Lvs	Leu	Leu	Gln	Lvs	Tvr	Leu	Cvs

Asp Glu Gln Lys Glu Leu Gln Ala Leu Tyr Ala Leu Gln Ala Leu Val Val Thr Leu Glu Gln Pro Pro Asn Leu Leu Arg Met Phe Phe Asp Ala Leu Tyr Asp Glu Asp Val Val Lys Glu Asp Ala Phe Tyr Ser Trp Glu Ser Ser Lys Asp Pro Ala Glu Gln Gln Gly Lys Gly Val Ala Leu Lys Ser Val Thr Ala Phe Phe Lys Trp Leu Arg Glu Ala Glu Glu Glu Ser Asp His Asn <210> 4815 <211> 694 <212> PRT <213> Homo sapiens <400> 4815 Met Glu Arg Ala Met Glu Gln Leu Asn Arg Leu Thr Arg Ser Leu Arg Arg Ala Arg Thr Val Glu Leu Pro Glu Asp Asn Glu Thr Ala Val Tyr Thr Leu Met Pro Met Val Met Ala Asp Gln His Arg Ser Val Ser Glu Leu Leu Ser Asn Ser Lys Phe Asp Val Asn Tyr Ala Phe Gly Arg Val Lys Arg Ser Leu Leu His Ile Ala Ala Asn Cys Gly Ser Val Glu Cys Leu Val Leu Leu Lys Lys Gly Ala Asn Pro Asn Tyr Gln Asp Ile Ser Gly Cys Thr Pro Leu His Leu Ala Ala Arg Asn Gly Gln Lys Lys 

Cys Met Ser Lys Leu Leu Glu Tyr Ser Ala Asp Val Asn 11e Cys Asn

		115					120					125			
Asn	Glu	Gly	Pro	Thr	Ala	He	His	Trp	Leu	Ala	Val	Asn	Gly	Arg	Thr
	130					135					140				
Glu	Leu	Leu	His	Asp	Leu	Val	G1n	His	Val	Ser	Asp	Val	Asp	Val	Glu
145					150					155					160
Asp	Ala	Met	Gly	Gln	Thr	Ala	Leu	His	Val	Ala	Cys	Gln	Asn	Gly	His
				165					170					175	
Lys	Thr	Thr	Val	Gln	Cys	Leu	Leu	Asp	Ser	Gly	Ala	Asp	lle	Asn	Arg
			180					185					190		
Pro	Asn	Val	Ser	Gly	Ala	Thr	Pro	Leu	Tyr	Phe	Ala	Cys	Ser	His	Gly
		195					200					205			
Gln	Arg	Asp	Thr	Ala	Gln	He	Leu	Leu	Leu	Arg	Gly	Ala	Lys	Tyr	Leu
	210					215					220				
Pro	Asp	Lys	Asn	Gly	Val	Thr	Pro	Leu	Asp	Leu	Cys	Val	Gln	Gly	Gly
225					230					235					240
Tyr	Gly	Glu	Thr	Cys	Glu	Val	Leu	He	G1n	Tyr	His	Pro	Arg	Leu	Phe
				245					250					255	
Gln	Thr	Ile	Ile	Gln	Met	Thr	Gln	Asn	Glu	Asp	Leu	Arg	Glu	Asn	Met
			260					265					270		
Leu	Arg	Gln	Val	Leu	Glu	His	Leu	Ser	Gln	Gln	Ser	Glu	Ser	Gln	Tyr
		275					280					285			
Leu	Lys	lle	Leu	Thr	Ser	Leu	Ala	Glu	Val	Ser	Thr	Thr	Asn	Gly	His
	290					295					300				
Lys	Leu	Leu	Ser	Leu	Ser	Ser	Asn	Tyr	Asp	Ala	Gln	Met	Lys	Ser	Leu
305					310					315					320
Leu	Arg	He	Val	Arg	Met	Phe	Cys	His	Val	Phe	Arg	lle	Gly	Pro	Ser
				325					330					335	
Ser	Pro	Ser	Asn	Gly	lle	Asp	Met	Gly	Tyr	Asn	Gly	Asn	Lys	Thr	Pro
			340					345					350		
Arg	Ser	Gln	Val	Phe	Lys	Pro	Leu	G] u	Leu	Leu	Trp	His	Ser	Leu	Asp
		355					360					365			
Glu	Trp	Leu	Val	Leu	He	Ala	Thr	Glu	Leu	Met	Lys	Asn	Lys	Arg	Asp
	370					375					380				
Ser	Thr	Glu	He	Thr	Ser	He	Leu	Leu	Lys	G1n	Lys	Gly	Gln	Asp	Gln
385					390					395					400
Acn	A10	Ala	Sor	116	Pro	Pro	Pho	G1n	$p_{ro}$	Pro	G1v	Pro	G1v	Ser	Tyr

				405					410					415	
Glu	Λsn	Leu	Ser	Thr	Gly	Thr	Arg	Glu	Ser	Lys	Pro	Asp	Ala	Leu	Ala
			420					425					430		
Gly	Arg	Gln	Glu	Ala	Ser	Ala	Asp	Cys	Gln	Asp	Val	He	Ser	Met	Thr
		435					440					445			
Ala	Asn	Arg	Leu	Ser	Ala	Val	11e	Gln	Ala	Phe	Tyr	Met	Cys	Cys	Ser
	450					455					460				
Cys	Gln	Met	Pro	Pro	Gly	Met	Thr	Ser	Pro	Arg	Phe	Ile	Glu	Phe	Val
465					470					475					480
Cys	Lys	His	Asp	Glu	Val	Leu	Lys	Cys	Phe	Val	Asn	Arg	Asn	Pro	Lys
				485					490					495	
lle	lle	Phe	Asp	His	Phe	His	Phe	Leu	Leu	Glu	Cys	Pro	Glu	Leu	Met
			500					505					510		
Ser	Arg	Phe	Met	His	lle	He	Lys	Ala	Gln	Ala	Glu	Tyr	Val	Gln	Leu
		515					520					525			
Val	Thr	Glu	Leu	Arg	Met	Thr	Arg	Ala	He	Gln	Pro	Gln	Ile	Asn	Ala
	530					535					540				
Phe	Leu	Gln	Gly	Phe	His	Met	Phe	Ile	Pro	Pro	Ser	Leu	lle	Gln	Leu
545					550					555					560
Phe	Asp	Glu	Tyr	Glu	Leu	Glu	Leu	Leu	Leu	Ser	Gly	Met	Pro	Glu	lle
				565					570					575	
Asp	Val	Ser	Asp	Trp	lle	Lys	Asn	Thr	Glu	Tyr	Thr	Ser	Gly	Tyr	Glu
			580					585					590		
Arg	Glu	Asp	Pro	Val	He	Gln	Trp	Phe	Trp	Glu	Val	Val	Glu	Asp	He
		595					600					605			
Thr	Gln	Glu	Glu	Arg	Val	Leu	Leu	Leu	Gln	Phe	Val	Thr	Gly	Ser	Ser
	610					615					620				
Arg	Val	Pro	His	Gly	Gly	Phe	Ala	Asn	He	Met	Gly	Gly	Ser	Gly	Leu
625					630					635					640
Gln	Asn	Phe	Thr	He	Ala	Ala	Val	Pro	Tyr	Thr	Pro	Asn	Leu	Leu	Pro
				645					650					655	
Thr	Ser	Ser	Thr	Cys	lle	Asn	Met	Leu	Lys	Leu	Pro	Glu	Tyr	Pro	Ser
			660					665					670		
Lys	Glu	He	Leu	Lys	Asp	Arg	Leu	Leu	Val	Ala	Leu	His	Cys	Gly	Ser
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Tyr	Gly	Tyr	Thr	Met	Ala										

690 .

<210> 4816

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Asn	Thr	Pro	Пе	Thr	Ser	Val	Ser	Leu	Ser	His	Ser	Ser	Ser	Glu	Ser
			20					25					30		
Ser	Lys	Met	Ser	Glu	Ser	Lys	Asp	Gln	Glu	Asn	Asn	Cys	Glu	Arg	Pro
		35					40					45			
Lys	Glu	Ser	Asn	Val	Leu	His	Pro	Asn	Gly	Glu	Cys	Pro	Val	Lys	Ser
	50					55					60				
Glu	Pro	Thr	Glu	Pro	G1 y	Asp	Glu	Asp	Glu	Glu	Asp	Ala	Tyr	Ser	Asr
65					70					75					80
Glu	Leu	Asp	Asp	Glu	Glu	Val	Leu	Gly	Glu	Leu	Thr	Asp	Ser	lle	Gly
				85					90					95	
Asn	Lys	Asp	Phe	Pro	Leu	Leu	Asn	Gln	Ser	He	Ser	Pro	Leu	Ser	Sei
			100					105					110		
Ser	Val	Leu	Lys	Phe	He	Glu	Lys	Gly	Thr	Ser	Ser	Ser	Ser	Ala	Thi
		115					120					125			
Val	Ser	Asp	Asp	Thr	Glu	Lys	Lys	Lys	Gln	Thr	Ala	Ala	Val	Arg	Ala
	130					135					140				
Ser	Gly	Ser	Val	Ala	Ser	Asn	Tyr	Gly	He	Ser	Gly	Lys	Asp	Phe	Ala
145					150					155					160
Asp	Ala	Ser	Ala	Ser	Lys	Asp	Ser	Ala	Thr	Ala	Ala	His	Pro	Ser	Glu
				165					170					175	
He	Ala	Arg	Gly	Asp	Glu	Asp	Ser	Ser	Ala	Thr	Pro	His	Gln	His	Gly
			180					185					190		
Phe	Thr	Pro	Ser	Thr	Pro	Gly	Thr	Pro	G1 y	Pro	Gly	Gly	Asp	Gly	Sei
		195					200					205			
Pro	G1v	Ser	Glv	He	Glu	Cvs	Pro	Lvs	Cvs	Asp	Thr	Val	Leu	Glv	Sei

	210					215					220				
Ser	Arg	Ser	Leu	Gly	Gly	His	Met	Thr	Met	Met	His	Ser	Arg	Asn	Ser
225					230					235					240
Cys	Lys	Thr	Leu	Lys	Cys	Pro	Lys	Cys	Asn	Trp	His	Tyr	Lys	Tyr	Gln
				245					250					255	
Gln	Thr	Leu	Glu	Ala	His	Met	Lys	Glu	Lys	His	Pro	Glu	Pro	Gly	Gly
			260					265					270		
Ser	Cys	Val	Tyr	Cys	Lys	Thr	Gly	Gln	Pro	His	Pro	Arg	Leu	Ala	Arg
		275					280					285			
Gly	Glu	Ser	Tyr	Thr	Cys	Gly	Tyr	Lys	Pro	Phe	Arg	Cys	Glu	Val	Cys
	290					295					300				
Asn	Tyr	Ser	Thr	Thr	Thr	Lys	Gly	Asn	Leu	Ser	He	His	Met	Gln	Ser
305					310					315				٠	320
Asp	Lys	His	Leu	Asn	Asn	Val	Gln	Asn		Gln	Asn	Gly	Asn		Glu
				325					330			_		335	
Gln	Val	Phe		His	Ser	Ala	Pro		Pro	Asn	Thr	Ser		Ser	Gly
			340	_	_	_	_	345		0.1			350	<b></b>	
Cys	Gly		Pro	Ser	Pro	Ser	Lys	Pro	Lys	GIn	Lys		Thr	Trp	Arg
		355			<b></b>	0.1	360		., .			365	,		T 1
Cys		Val	Cys	Asp	lyr		Thr	Asn	Val	Ala		Asn	Leu	Arg	11e
	370	TI.	C .	C1		375	М-4	112	۸	Made	380	Lau	Lau	C1 5	Cl <sub>n</sub>
	Met	inr	Ser	GIU		HIS	Met	піѕ	ASI		Met	Leu	Leu	GIII	400
385	Mad	Luc	Cln	Tla	390	Uic	Asn	Lau	Hic	395	Clv	Lou	Δla	Pro	
ASII	мет	Lys	GIII	405	6111	1115	ASH	Leu	410	Leu	Oly	Leu	MIA	415	MIG
Glu	Λla	Glu	Lau		Gln	Tyr	Tyr	leu		Gln	Asn	He	Glv		Thr
Olu	MIG	Q1u	420		OIII	1 9 1.	.,.	425		0111	11011	110	430		
Glv	Met	lvs			Asn	Pro	Ala			Gln	l.eu	Met			Pro
01)	MCC	435	204	014			440	,				445			
Phe	Gln		Asp	Pro	Ala	Thr		Ala	Ala	Leu	Ala		Gly	Leu	Gly
	450					455					460				
Glu	Leu	Ser	Pro	Tyr	lle	Ser	Asp	Pro	Ala	Leu	Lys	Leu	Phe	Gln	Cys
465				-	470					475					480
Ala	Va]	Cys	Asn	Lys	Phe	Thr	Ser	Asp	Ser	Leu	Glu	Ala	Leu	Ser	Val
				485					490					495	
His	Val	Ser	Ser	Glu	Arg	Ser	Len	Pro	Glu	Glu	Glu	Trp	Arg	Ala	Val

Ile Gly Asp Ile Tyr Gln Cys Lys Leu Cys Asn Tyr Asn Thr Gln Leu Lys Ala Asn Phe Gln Leu His Cys Glu Thr Asp Lys His Met Gln Lys Tyr Gln Leu Val Ala His Ile Lys Glu Gly Gly Lys Ser Asn Glu Trp Arg Leu Lys Cys Ile Ala Ile Gly Asn Pro Val His Leu Lys Cys Asn Ala Cys Asp Tyr Tyr Thr Asn Ser Val Asp Lys Leu Arg Leu His Thr Thr Asn His Arg His Glu Ala Ala Leu Lys Leu Tyr Lys Val Ser Ser Asp Ile His Phe Arg Trp His Arg Val Glu Lys Gly Ile Asn Ser Phe Arg Ala Trp Ser Thr Ser Leu Gln Leu Lys Glu Lys Lys Arg Glu Lys Thr Ser Lys Gly Arg Gly His Ser Phe <210> 4817 <211> 808 <212> PRT <213> Homo sapiens <400> 4817 Met Leu Glu Gly His Glu Ser Tyr Asp Thr Glu Asn Phe Tyr Phe Arg Glu Ile Arg Lys Asn Leu Gln Glu Val Asp Phe Gln Trp Lys Asp Gly Glu Ile Asn Tyr Lys Glu Gly Pro Met Thr His Lys Asn Asn Leu Thr 

Gly Gln Arg Val Arg His Ser Gln Gly Asp Val Glu Asn Lys His Met

Glu	Asn	Gln	Leu	11e	Leu	Arg	Phe	Gln	Ser	Gly	Leu	Gly	Glu	Leu	Gln
65					70					75					80
Lys	Phe	G1n	Thr	Ala	Glu	Lys	11e	Tyr	Gly	Cys	Asn	G1n	He	Glu	Arg
				85					90					95	
Thr	Val	Asn	Asn	Cys	Phe	Leu	Ala	Ser	Pro	Leu	G1n	Arg	He	Phe	Pro
			100					105					110		
Gly	Val	Gln	Thr	Asn	lle	Ser		Lys	Tyr	G1 y	Asn		Phe	Leu	Gln
		115					120					125			
Leu		Leu	Pro	Thr	Gln		Glu	Lys	Thr	His		Arg	Glu	Lys	Pro
	130					135					140		_	_	
-	He	Gly	Asn	Glu	Cys	Gly	Lys	Ala	Phe		Val	Ser	Ser	Ser	
145					150					155					160
He	Asn	His	Gln		lle	His	Thr	Thr		Lys	Pro	Tyr	Arg		Asn
	~			165				0.1	170		,	m	11 1	175	61
Glu	Ser	Gly		Ala	Phe	HIS	Arg		Ser	Leu	Leu	Ihr		HIS	GIn
	V 3	11.	180		61	,	n	185 T	61	C .	Α	V - 1	190	C1	Δ
11e	vai		inr	Arg	Gly	Lys		ıyr	GIN	Cys	ASP		Cys	Gly	Arg
T) a	Dha	195	Cln	A an	Can	Aan	200	Vol	Acn	Uio	Ana	205	Son	uic	Thr
116	210	AIg	GIII	ASII	Ser	215	Leu	val	ASII	1115	220	AI g	261	1113	1111
Glv		lve	Pro	Tur	lle		Asn	Glu	Cvs	G1 v		Ser	Phe	Ser	lvs
225	пар	Lys	110	1 9 1	230	Cys	71311	oru	Cys	235	Lys	561	1110	501	240
	Ser	His	Leu	Ala	Val	His	Gln	Arø	He		Thr	G1 v	Glu	Lvs	
561	00,		200	245	,		0	8	250			01,		255	
Tvr	Lvs	Cvs	Asn		Cys	G1v	Lvs	Cvs		Ser	Gln	Ser	Ser		Leu
- , -	,	- ,	260				•	265					270		
Ala	Thr	His		Thr	Val	His	Thr	Gly	Asp	Lys	Pro	Tyr	Lys	Cys	Asn
		275					280					285			
Glu	Cys	Gly	Lys	Thr	Phe	Lys	Arg	Asn	Ser	Ser	Leu	Thr	Ala	His	His
	290					295					300				
He	11e	His	Ala	Gly	Lys	Lys	Pro	Tyr	Thr	Cys	Asp	Val	Cys	Gly	Lys
305					310					315					320
Val	Phe	Tyr	G]n	Asn	Ser	Gln	Leu	Val	Arg	His	Gln	He	He	His	Thr
				325					330					335	
Gly	Glu	Thr	Pro	Tyr	Lys	Cys	Asn	Glu	Cys	Gly	Lys	Val	Phe	Phe	Gln
			340					345					350		

Arg	Ser	Arg	Leu	Ala	Gly	llis		Arg	Ile	His	Thr		Glu	Lys	Pro
		355					360					365			
Tyr	Lys	Cys	Asn	Glu	Cys	G1 y	Lys	Val	Phe	Ser	G1n	His	Ser	His	Leu
	370					375					380				
Ala	Val	His	Gln	Arg	Val	His	Thr	Gly	Glu	Lys	Pro	Tyr	Lys	Cys	Asn
385					390					395					400
Glu	Cys	Gly	Lys	Ala	Phe	Asn	Trp	G1 y	Ser	Leu	Leu	Thr	Val	His	Gln
				405					410					415	
Arg	Ile	His	Thr	Gly	Glu	Lys	Pro	Tyr	Lys	Cys	Asn	Val	Cys	Gly	Lys
			420					425					430		
Val	Phe	Asn	Tyr	Gly	Gly	Tyr	Leu	Ser	Val	His	Met	Arg	Cys	His	Thr
		435					440					445			
Gly	Glu	Lys	Pro	Leu	His	Cys	Asn	Lys	Cys	Gly	Met	Val	Phe	Thr	Tyr
	450					455					460				
Tyr	Ser	Cys	Leu	Ala	Arg	His	Gln	Arg	Met	His	Thr	Gly	Glu	Lys	Pro
465					470					475					480
Tyr	Lys	Cys	Asn	Val	Cys	Gly	Lys	Val	Phe	lle	Asp	Ser	Gly	Asn	Leu
				485					490					495	
Ser	Ile	His	Arg	Arg	Ser	His	Thr	Gly	Glu	Lys	Pro	Phe	Gln	Cys	Asn
			500					505					510		
Glu	Cys	Gly	Lys	Val	Phe	Ser	Tyr	Tyr	Ser	Cys	Leu	Ala	Arg	His	Arg
		515					520					525			
Lys	He	His	Thr	Gly	Glu	Lys	Pro	Tyr	Lys	Cys	Asn	Asp	Cys	Gly	Lys
	530					535					540				
Ala	Tyr	Thr	Gln	Arg	Ser	Ser	Leu	Thr	Lys	His	Leu	Val	He	His	Thr
545					550					555					560
Gly	Glu	Asn	Pro	Tyr	His	Cys	Asn	Glu	Phe	Gly	Glu	Ala	Phe	lle	Gln
				565					570					575	
Ser	Ser	Lys	Leu	Ala	Arg	Tyr	His	Arg	Asn	Pro	Thr	Gly	Glu	Lys	Pro
			580					585					590		
His	Lys	Cys	Ser	Glu	Cys	Gly	Arg	Thr	Phe	Ser	His	Lys	Thr	Ser	Leu
		595					600					605			
Val	Tyr	His	G1n	Arg	Arg	His	Thr	Gly	Glu	Met	Pro	Tyr	Lys	Cys	Пе
	610					615					620				
Glu	Cys	Gly	Lys	Val	Phe	Asn	Ser	Thr	Thr	Thr	Leu	Ala	Arg	His	Arg
625					630					635					640

Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Val Phe Arg Tyr Arg Ser Gly Leu Ala Arg His Trp Ser Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Ala Phe Arg Val Arg Ser Ile Leu Leu Asn His Gln Met Met His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Ala Phe Ile Glu Arg Ser Asn Leu Val Tyr His Gln Arg Asn His Thr Gly Glu Lys Pro Tyr Lys Cys Met Glu Cys Gly Lys Ala Phe Gly Arg Arg Ser Cys Leu Thr Lys His Gln Arg Ile His Ser Ser Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Ser Tyr Ile Ser Arg Ser Gly Leu Thr Lys His Gln Ile Lys His Ala Gly Glu Asn Leu Thr Thr Lys Leu Asn Val Glu Arg Pro Leu Asp Val Val Leu Thr Ser Gly Ile Pro Lys 

<210> 4818

<211> 602

<212> PRT

<213> Homo sapiens

<400> 4818

 Met
 He
 Gln
 Ser
 Gly
 Lys
 Gly
 Ala
 Asp
 Pro
 Pro
 Asp
 Lys
 Lys
 Met

 1
 5
 10
 15
 15

 Lys
 Leu
 Ser
 Thr
 Ala
 Thr
 Asn
 Pro
 Gln
 Asn
 Gly
 Leu
 Ser
 Gln
 Ile
 Leu

 Arg
 Leu
 Val
 Leu
 Gln
 Glu
 Leu
 Ser
 Leu
 Phe
 Tyr
 Ser
 Arg
 Asp
 Val
 Asn

 35
 40
 45
 45
 45
 45

Gly	Val 50	Cys	Leu	Leu	Tyr	Asp 55	Leu	Leu	His	Ser	Pro 60	Trp	Leu	Gln	Ala
Leu 65	Leu	Lys	lle	Tyr	Asp	Cys	Leu	Gln	Glu	Phe 75	Lys	Glu	Lys	Lys	Leu 80
Val	Pro	Ala	Thr	Pro 85	His	Ala	Gln	Val	Leu 90	Ser	Tyr	Glu	Val	Val 95	Glu
Leu	Leu	Arg	Glu 100	Thr	Pro	Thr	Ser	Pro 105	Glu	He	Gln	Glu	Leu 110	Arg	Gln
Met	Leu	Gln 115	Ala	Pro	His	Phe	Lys 120	Gly	Ala	Thr	lle	Lys 125	Arg	His	Glu
Met	Thr 130	Gly	Asp	lle	Leu	Val 135	Ala	Arg	Ile	lle	His 140	Gly	G1 y	Leu	Ala
Glu 145	Arg	Ser	Gly	Leu	Leu 150	Tyr	Ala	Gly	Asp	Lys 155	Leu	Val	Glu	Val	Asn 160
Gly	Val	Ser	Val	Glu 165	Gly	Leu	Asp	Pro	Glu 170	Gln	Val	lle	His	He 175	Leu
Ala	Met	Ser	Arg 180	Gly	Thr	He	Met	Phe 185	Lys	Val	Val	Pro	Val 190	Ser	Asp
Pro	Pro	Val 195	Asn	Ser	Gln	Gln	Met 200	Val	Tyr	Val	Arg	Ala 205	Met	Thr	Glu
Tyr	Trp 210	Pro	Gln	Glu	Asp	Pro 215	Asp	lle	Pro	Cys	Met 220	Asp	Ala	Gly	Leu
Pro 225	Phe	Gln	Lys	Gly	Asp 230	He	Leu	G1n	lle	Val 235	Asp	Gln	Asn	Asp	Ala 240
Leu	Trp	Trp	G1n	Ala 245	Arg	Lys	lle	Ser	Asp 250	Pro	Ala	Thr	Cys	Ala 255	Gly
Leu	Va]	Pro	Ser 260	Asn	His	Leu	Leu	Lys 265	Arg	Trp	Ser	Phe	Ala 270	Leu	Val
Ala	Gln	Ala 275	Gly	Val	Gln	Trp	His 280	Tyr	Leu	Asp	Ser	Leu <sub>.</sub> 285	Gln	Pro	Leu
Pro	Pro 290	G1 y	Phe	Lys	Λrg	Phe 295	Ser	Cys	Leu	Ser	Leu 300	Pro	Arg	Ser	Trp
Asp 305	Tyr	lle	Glu	Asp	Asp 310	Met	Lys	lle	Asp	Glu 315	Lys	Cys	Val	Glu	Ala 320
Asp	Glu	Glu	Thr	Phe 325	Glu	Ser	Asp	Lys	Glu 330	Glu	Phe	Val	Gly	Tyr 335	Gly

Gln	Lys	Phe	Phe	He	Ala	Gly	Phe	Arg	Arg	Ser	Met	Arg	Leu	Cys	Arg
			340					345					350		
Arg	Lys	Ser	His	Leu	Ser	Pro	Leu	His	Ala	Ser	Val	Cys	Cys	Thr	Gly
		355					360					365			
Ser	Cys	Tyr	Ser	Ala	Val	Gly	Ala	Pro	Tyr	Glu	Glu	Val	Val	Arg	Tyr
	370					375					380				
Gln	Arg	Arg	Pro	Ser	Asp	Lys	Tyr	Arg	Leu	He	Val	Leu	Met	G1 y	Pro
385					390					395					400
Ser	Gly	Val	Gly	Val	Asn	Glu	Leu	Arg	Arg	Gln	Leu	Ile	Glu	Phe	Asn
				405					410					415	
Pro	Ser	His	Phe	Gln	Ser	Ala	Val	Pro	His	Thr	Thr	Arg	Thr	Lys	Lys
			420					425					430		
Ser	Туг	Glu	Met	Asn	Gly	Arg	Glu	Tyr	His	Tyr	Val	Ser	Lys	Glu	Thr
		435					440					445			
Phe	Glu	Asn	Leu	He	Tyr	Ser	His	Arg	Met	Leu	Glu	Tyr	Gly	Glu	Tyr
	450					455					460				
Lys	Gly	His	Leu	Tyr	Gly	Thr	Ser	Val	Asp	Ala	Val	Gln	Thr	Val	Leu
465					470					475					480
Val	Glu	Gly	Lys	lle	Cys	Val	Met	Asp	Leu	Glu	Pro	Gln	Asp	Ile	Gln
				485					490					495	
Gly	Val	Arg	Thr	His	Glu	Leu	Lys	Pro	Tyr	Val	He	Phe	He	Lys	Pro
			500					505					510		
Ser	Asn	Met	Arg	Cys	Met	Lys	Gln	Ser	Arg	Lys	Asn	Ala	Lys	Val	11e
		515					520					525			
Thr	Asp	Tyr	Tyr	Val	Asp	Met	Lys	Phe	Lys	Asp	Glu	Asp	Leu	Gln	Glu
	530					535					540				
Met	Glu	Asn	Leu	Ala	Gln	Arg	Met	Glu	Thr	Gln	Phe	Gly	Gln	Phe	Phe
545					550					555					560
Asp	His	Val	He	Val	Asn	Asp	Ser	Leu	His	Asp	Ala	Cys	Ala	Gln	Leu
				565					570					575	
Leu	Ser	Ala	Пе	G1n	Lys	Ala	Gln	G] u	Glu	Pro	Gln	Trp	Val	Pro	Ala
			580					585					590		
Thr	Trp	He	Ser	Ser	Asp	Thr	Glu	Ser	Gln						
		595					600								

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<210> 4819
<211> 498
<212> PRT
<213> Homo sapiens
<400> 4819
Met Glu Ser Pro Arg Gly Trp Thr Leu Gln Val Ala Pro Glu Glu Gly
Gln Val Leu Cys Asn Val Lys Thr Ala Thr Arg Gly Leu Ser Glu Gly
                                                      30
             20
                                 25
Ala Val Ser Gly Gly Trp Gly Ala Trp Glu Asn Ser Thr Glu Val Pro
                             40
Arg Glu Ala Gly Asp Gly Gln Arg Gln Gln Ala Thr Leu Gly Ala Ala
                         55
Asp Glu Gln Gly Gly Pro Gly Arg Glu Leu Gly Pro Ala Asp Gly Gly
                     70
                                         75
65
Arg Asp Gly Ala Gly Pro Arg Ser Glu Pro Ala Asp Arg Ala Leu Arg
                                     90
                 85
Pro Ser Pro Leu Pro Glu Glu Pro Gly Cys Arg Cys Gly Glu Cys Gly
                                105
            100
Lys Ala Phe Ser Gln Gly Ser Tyr Leu Leu Gln His Arg Arg Val His
                            120
                                                 125
Thr Gly Glu Lys Pro Tyr Thr Cys Pro Glu Cys Gly Lys Ala Phe Ala
    130
                        135
Trp Ser Ser Asn Leu Ser Gln His Gln Arg lle His Ser Gly Glu Lys
                    150
                                        155
Pro Tyr Ala Cys Arg Glu Cys Gly Lys Ala Phe Arg Ala Gln Ser Gln
                                     170
                                                         175
                165
Leu 11c His His Gln Glu Thr His Ser Gly Leu Lys Pro Phe Arg Cys
            180
                                 185
Pro Asp Cys Gly Lys Ser Phe Gly Arg Ser Thr Thr Leu Val Gln His
                            200
                                                 205
Arg Arg Thr His Thr Gly Glu Lys Pro Tyr Glu Cys Pro Glu Cys Gly
```

215

Lys Ala Phe Ser Trp Asn Ser Asn Phe Leu Glu His Arg Arg Val His

220

225					230					235					240
Thr	G1y	Ala	Arg	Pro	His	Ala	Cys	Arg	Asp	Cys	Gly	Lys	Ala	Phe	Ser
				245					250					255	
Gln	Ser	Ser	Asn	Leu	Ala	Glu	His	Leu	Lys	Пе	His	Ala	Gly	Ala	Arg
			260					265					270		
Pro	His	Ala	Cys	Pro	Asp	Cys	Gly	Lys	Ala	Phe	Val	Arg	Val	Ala	Gly
		275					280					285			
Leu	Arg	Gln	His	Arg	Arg	Thr	His	Ser	Ser	Glu	Lys	Pro	Phe	Pro	Cys
	290					295					300				
Ala	Glu	Cys	Gly	Lys	Ala	Phe	Λrg	Glu	Ser	Ser	Gln	Leu	Leu	Gln	His
305					310					315					320
Gln	Arg	Thr	His	Thr	Gly	Glu	Arg	Pro	Phe	Glu	Cys	Ala	Glu	Cys	Gly
				325					330					335	
Gln	Ala	Phe	Val	Met	Gly	Ser	Tyr	Leu	Ala	Glu	His	Arg	Arg	Va1	His
			340					345					350		
Thr	Gly	Glu	Lys	Pro	His	Ala	Cys	Ala	Gln	Cys	Gly	Lys	Ala	Phe	Ser
		355					360					365			
Gln	Arg	Ser	Asn	Leu	Leu	Ser	His	Arg	Arg	Thr	His	Ser	Gly	Ala	Lys
	370					375					380				
Pro	Phe	Ala	Cys	Ala	Asp	Cys	Gly	Lys	Ala	Phe	Arg	Gly	Ser	Ser	G1 y
385					390					395					400
Leu	Ala	His	His	Arg	Leu	Ser	His	Thr	G1 y	G] u	Arg	Pro	Phe	Ala	Cys
				405					410					415	
Ala	G1u	Cys	Gly	Lys	Ala	Phe	Arg	Gly	Ser	Ser	Glu	Leu	Arg	Gln	His
			420					425					430		
Gln	Arg	Leu	His	Ser	Gly	Glu	Arg	Pro	Phe	Val	Cys	Ala	His	Cys	Ser
		435										445			
Lys	Ala	Phe	Val	Arg	Lys	Ser	Glu	Leu	Leu	Ser	His	Arg	Arg	Thr	His
	450					455					460				
Thr	Gly	Glu	Λrg	Pro	Tyr	Ala	Cys	Gly	G] u	Cys	G1 y	Lys	Pro	Phe	Ser
465					470					475					480
His	Arg	Cys	Asn		Asn	Glu	His	Gln		Arg	His	G1 y	Gly		Ala
				485					490					495	
Ala	Pro														

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<210> 4820
<211> 486
<212> PRT
<213> Homo sapiens
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<400> 443

Met Arg Gly Arg Gly Ser Gln Gln Gln Gln Pro Thr Arg Arg Gln Gly 5 10 Gln Lys Leu Pro Ser Pro Ser Pro Ala Gly Lys Tyr Glu Ser Ala Gln 25 Pro Gly Gly Thr Gln Pro Glu Pro Gly Leu Gly Ala Arg Met Ala Ile 35 40 45

His Lys Ala Leu Val Met Cys Leu Gly Leu Pro Leu Phe Leu Phe Pro 55

Gly Ala Trp Ala Gln Gly His Val Pro Pro Gly Cys Ser Gln Gly Leu 70 75

Asn Pro Leu Tyr Tyr Asn Leu Cys Asp Arg Ser Gly Ala Trp Gly Ile 85 90

Val Leu Glu Ala Val Ala Gly Ala Gly Ile Val Thr Thr Phe Val Leu 105

Thr Ile Ile Leu Val Ala Ser Leu Pro Phe Val Gln Asp Thr Lys Lys 115 120 125

Arg Ser Leu Leu Gly Thr Gln Val Phe Phe Leu Leu Gly Thr Leu Gly 135

Leu Phe Cys Leu Val Phe Ala Cys Val Val Lys Pro Asp Phe Ser Thr 150 155

Cys Ala Ser Arg Arg Phe Leu Phe Gly Val Leu Phe Ala Ile Cys Phe 175 165 170

Ser Cys Leu Ala Ala His Val Phe Ala Leu Asn Phe Leu Ala Arg Lys 185

Asn His Gly Pro Arg Gly Trp Val 11e Phe Thr Val Ala Leu Leu Leu 200 205

Thr Leu Val Glu Val Ile Ile Asn Thr Glu Trp Leu Ile Ile Thr Leu 210 215 220

Val	Arg	Gly	Ser	Gly	Glu	Gly	Gly	Pro	Gln	Gly	Asn	Ser	Ser	Ala	Gly
225					230					235					240
Trp	Ala	Val	Ala	Ser	Pro	Cys	Ala	He	Ala	Asn	Met	Asp	Phe	Va]	Met
				245					250					255	
Ala	Leu	He	Tyr	Val	Meț	Leu	Leu	Leu	Leu	Gly	Ala	Phe	Leu	Gly	Ala
			260					265					270		
Trp	Pro	Ala	Leu	Cys	Gly	Arg	Tyr	Lys	Arg	Trp	Arg	Lys	His	Gly	Val
		275		•			280					285			
Phe	Val	Leu	Leu	Thr	Thr	Ala	Thr	Ser	Val	Ala	Ile	Trp	Val	Val	Trp
	290					295					300				
Ile	Val	Met	Tyr	Thr	Tyr	Gly	Asn	Lys	Gln	His	Asn	Ser	Pro	Thr	Trp
305					310					315					320
Asp	Asp	Pro	Thr	Leu	Ala	11e	Ala	Leu	Ala	Ala	Asn	Ala	Trp	Ala	Phe
				325					330					335	
Val	Leu	Phe	Tyr	Va]	He	Pro	Glu	Val	Ser	Gln	Val	Thr	Lys	Ser	Ser
			340					345					350		
Pro	Glu	Gln	Ser	Tyr	Gln	Gly	Asp	Met	Tyr	Pro	Thr	Arg	Gly	.Val	Gly
		355					360					365			
Tyr	Glu	Thr	Ile	Leu	Lys	Glu	Gln	Lys	Gly	Gln	Ser	Met	Phe	Val	Glu
	370					375					380				
Asn	Lys	Ala	Phe	Ser	Met	Asp	Glu	Pro	Val	Ala	Ala	Lys	Arg	Pro	Val
385					390					395					400
Ser	Pro	Tyr	Ser	Gly	Tyr	Asn	Gly	Gln	Leu	Leu	Thr	Ser	Va]	Tyr	Gln
				405					410					415	
Pro	Thr	Glu	Met	Ala	Leu	Met	His	Lys	Val	Pro	Ser	Glu	Gly	Ala	Tyr
			420					425					430		
Asp	lle	He	Leu	Pro	Arg	Ala	Thr	Ala	Asn	Ser	Gln	Val	Met	Gly	Ser
		435					440					445			
Ala	Asn	Ser	Thr	Leu	Arg	Ala	Glu	Asp	Met	Tyr	Ser	Ala	Gln	Ser	His
	450					455					460				
Gln	Ala	Ala	Thr	Pro	Pro	Lys	Asp	Gly	Lys	Asn	Ser	Gln	Val	Phe	Arg
465					470					475					480
Asn	Pro	Tyr	Val	Trp	Asp										

<210> 4821

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<211> 301
<212> PRT
<213> Homo sapiens
<400> 444
Met Tyr Thr Arg Arg Tyr Ser Ser Ile Ser Ser Thr Ile Met Asp Val
                                     10
Asp Ser Thr lle Ser Ser Gly Arg Ser Thr Pro Ala Met Met Asn Gly
                                                      30
                                 25
Gln Gly Ser Thr Thr Ser Ser Ser Lys Asn Ile Ala Tyr Asn Cys Cys
                             40
Trp Asp Gln Cys Gln Ala Cys Phe Asn Ser Ser Pro Asp Leu Ala Asp
     50
                         55
                                              60
His Ile Arg Ser 11e His Val Asp Gly Gln Arg Gly Gly Val Phe Val
                     70
                                          75
 65
Cys Leu Trp Lys Gly Cys Lys Val Tyr Asn Thr Pro Ser Thr Ser Gln
                                      90
                 85
Ser Trp Leu Gln Arg His Met Leu Thr His Ser Gly Asp Lys Pro Phe
            100
Lys Cys Val Val Gly Gly Cys Asn Ala Ser Phe Ala Ser Gln Gly Gly
                            120
Leu Ala Arg His Val Pro Thr His Phe Ser Gln Gln Asn Ser Ser Lys
                        135
                                             140
Val Ser Ser Gln Pro Lys Ala Lys Glu Glu Ser Pro Ser Lys Ala Gly
                    150
                                         155
                                                             160
145
Met Asn Lys Arg Arg Lys Leu Lys Asn Lys Arg Arg Arg Ser Leu Pro
                165
                                     170
Arg Pro His Asp Phe Phe Asp Ala Gln Thr Leu Asp Ala Ile Arg His
                                                     190
            180
                                 185
Arg Ala Ile Cys Phe Asn Leu Ser Ala His Ile Glu Ser Leu Gly Lys
                            200
Gly His Ser Val Val Phe His Ser Thr Val Ile Ala Lys Arg Lys Glu
                        215
                                             220
    210
Asp Ser Gly Lys Ile Lys Leu Leu Leu His Trp Met Pro Glu Asp Ile
                                                             240
```

 Leu Pro Asp
 Val Trp
 Val Asn Glu
 Ser Glu
 Arg His Gln
 Leu Lys
 Thr

 Lys
 Val His Leu
 Ser Lys
 Leu Pro Lys
 Asp Thr
 Ala Leu Leu Leu 260
 Leu 270

 Asp Pro Asn Ile Tyr
 Tyr
 Arg Thr
 Met Pro Gln
 Lys
 Arg Leu Lys
 Arg Thr

 Leu Ile Arg
 Lys
 Val Phe Asn Leu Tyr
 Leu Tyr Leu Ser Lys
 Gln

 290
 295
 300
 300

<210> 4822

<211> 626

<212> PRT

<213> Homo sapiens

<400> 445

Met Ala Val Ser Gly Phe Thr Leu Gly Thr Cys Ile Leu Leu Leu His

1 5 10 15

Lle Ser Tyr Val Ala Asp Tyr Pro Asp Gly Lys Val Thr Glp Ser Cys

Ile Ser Tyr Val Ala Asn Tyr Pro Asn Gly Lys Val Thr Gln Ser Cys
20 25 30

His Gly Met Ile Pro Glu His Gly His Ser Pro Gln Ser Val Pro Val
35 40 45

His Asp Ile Tyr Val Ser Gln Met Thr Phe Arg Pro Gly Asp Gln Ile
50 55 60

Glu Val Thr Leu Ser Gly His Pro Phe Lys Gly Phe Leu Leu Glu Ala
65 70 75 80

Arg Asn Ala Glu Asp Leu Asn Gly Pro Pro Ile Gly Ser Phe Thr Leu 85 90 95

Ile Asp Ser Glu Val Ser Gln Leu Leu Thr Cys Glu Asp Ile Gln Gly
100 105 110

Ser Ala Val Ser His Arg Ser Ala Ser Lys Lys Thr Glu Ile Lys Val

Tyr Trp Asn Ala Pro Ser Ser Ala Pro Asn His Thr Gln Phe Leu Val 130 135 140

Thr Val Val Glu Lys Tyr Lys lle Tyr Trp Val Lys lle Pro Gly Pro 145 150 155 160

Ile	He	Ser	Gln	Pro	Asn	Ala	Phe	Pro	Phe	Thr	Thr	Pro	Lys	Ala	Thr
				165					170					175	
Val	Val	Leu	Leu	Pro	Thr	Leu	Pro	Pro	Val	Ser	His	Leu	Thr	Lys	Pro
			180					185					190		
Phe	Ser	Ala	Ser	Asp	Cys	Gly	Asn	Lys	Lys	Phe	Cys	Ile	Arg	Ser	Pro
		195					200					205			
Leu	Asn	Cys	Asp	Pro	Glu	Lys	Glu	Ala	Ser	Cys	Val	Phe	Leu	Ser	Phe
	210					215					220				
Thr	Arg	Asp	Asp	Gln	Ser	Val	Met	Val	Glu	Met	Ser	Gly	Pro	Ser	Lys
225					230					235					240
Gly	Tyr	Leu	Ser	Phe	Ala	Leu	Ser	His	Asp	Gln	Trp	Met	Gly	Asp	Asp
				245					250					255	
Asp	Ala	Tyr	Leu	Cys	11e	His	Glu	Asp	Gln	Thr	Val	Tyr	He	Gln	Pro
			260					265					270		
Ser	His	Leu	Thr	Gly	Arg	Ser	His	Pro	Val	Met	Asp	Ser	Arg	Asp	Thr
		275					280					285			
Leu	Glu	Asp	Met	Ala	Trp	Arg	Leu	Ala	Asp	Gly	Val	Met	Gln	Cys	Ser
	290					295					300				
Phe	Arg	Arg	Asn	He	Thr	Leu	Pro	Gly	Val	Lys	Asn	Arg	Phe	Asp	Leu
305					310					315					320
Asn	Thr	Ser	Tyr	Tyr	He	Phe	Leu	Ala	Asp	Gly	Ala	Ala	Asn	Asp	Gly
				325					330					335	
Arg	He	Tyr	Lys	His	Ser	Gln	Gln	Pro	Leu	He	Thr	Tyr	Glu	Lys	Tyr
			340					345					350		
Asp	Val	Thr	Asp	Ser	Pro	Lys	Asn	He	Gly	G1 y	Ser	His	Ser	Val	Leu
		355					360					365			
Leu	Leu	Lys	Val	His	Gly	Ala	Leu	Met	Phe	Val	Ala	Trp	Met	Thr	Thr
	370					375					380				
Val	Ser	He	Gly	Val	Leu	Val	Ala	Arg	Phe	Phe	Lys	Pro	Val	Trp	Ser
385					390					395					400
Lys	Ala	Phe	Leu	Leu	Gly	Glu	Ala	Ala	Trp	Phe	Gln	Val	His	Arg	Met
				405					410					415	
Leu	Met	Phe	Thr	Thr	Thr	Val	Leu	Thr	Cys	He	Ala	Phe	Val	Met	Pro
			420					425					430		
Phe	Ile	Tyr	Arg	Gly	Gly	Trp	Ser	Arg	His	Ala	Gly	Tyr	His	Pro	Tyr
		435					440					445			

Leu Gly Cys Ile Val Met Thr Leu Ala Val Leu Gln Pro Leu Leu Ala Val Phe Arg Pro Pro Leu His Asp Pro Arg Gln Met Phe Asn Trp Thr His Trp Ser Met Gly Thr Ala Ala Arg Ile Ile Ala Val Ala Ala Met Phe Leu Gly Met Asp Leu Pro Gly Leu Asn Leu Pro Asp Ser Trp Lys Thr Tyr Ala Met Thr Gly Phe Val Ala Trp His Val Gly Thr Glu Val Val Leu Glu Leu Lys Tyr Trp Met Met Thr Glu Phe Arg Ser Phe Ser His Leu Leu Gln Trp Lys Gln Arg Val Met Leu Leu Lys Arg Gln Cys Trp Gln Phe Met Ser Val Gly Met Leu Leu Phe Ser Ser Tyr Phe Tyr Leu Gln Ser Thr Ile Tyr Glu Gln Ala Lys Thr Leu Ala Phe Ala Gly Gln Val Ile Ile Ile Ile Lys Pro Lys Lys Leu Glu Ala Cys Pro Asp Cys Leu Glu His Ile Cys Glu Phe Ser Leu Gly Arg Leu Gly Ser Cys Leu <210> 4823

<211> 827

<212> PRT

<213> Homo sapiens

<400> 446

Met lle Arg Arg Leu Lys Thr Glu Val Leu Thr Gln Leu Pro Pro Lys Val Arg Gln Arg Ile Pro Phe Asp Leu Pro Ser Ala Ala Ala Lys Glu 

Leu	Asn	Thr	Ser	Phe	Glu	Glu	Trp	Glu	Lys	Ile	Met	Arg	Thr	Pro	Asn
		35					40					45			
Ser	Gly	Ala	Met	Glu	Thr	Val	Met	Gly	Leu	He	Thr	Arg	Met	Phe	Lys
	50					55					60				
Gln	Thr	Ala	Пе	Ala	Lys	Ala	Gly	Ala	Val	Lys	Asp	Tyr	He	Lys	Met
65					70					75					80
Met	Leu	Gln	Λsn	Asp	Ser	Leu	Lys	Phe	Leu	Val	Phe	Ala	His	His	Leu
				85					90					95	
Ser	Met	Leu	Gln	Ala	Cys	Thr	Glu	Ala	Val	Ile	Glu	Asn	Lys	Thr	Arg
			100					105					110		
Tyr	He	Arg	Ile	Asp	Gly	Ser	Val	Ser	Ser	Ser	Glu	Arg	lle	His	Leu
		115					120					125			
Val	Asn	Gln	Phe	Gln	Lys	Asp	Pro	Asp	Thr	Arg	Va]	Ala	He	Leu	Ser
	130					135					140				
lle	Gln	Ala	Ala	Gly	Gln	Gly	Leu	Thr	Phe	Thr	Ala	Ala	Ser	His	Val
145					150					155					160
Val	Phe	Ala	Glu	Leu	Tyr	Trp	Asp	Pro	Gly	His	He	Lys	Gln	Ala	Glu
				165					170					175	
Asp	Arg	Ala	His	Arg	Ile	Gly	Gln	Cys	Ser	Ser	Val	Asn	He	His	Tyr
			180					185					190		
Leu	Ile	Ala	Asn	Gly	Thṛ	Leu	Asp	Thr	Leu	Met	Trp	Gly	Met	Leu	Asn
		195					200					205			
Arg	Lys	Ala	Gln	Val	Thr	Gly	Ser	Thr	Leu	Asn	Gly	Arg	Lys	Glu	Lys
	210					215					220				
11e	Gln	Ala	Glu	Glu	Gly	Asp	Lys	Glu	Lys	Trp	Asp	Phe	Leu	Gln	Phe
225					230					235					240
Ala	Glu	Ala	Trp	Thr	Pro	Asn	Asp	Ser	Ser	Glu	Glu	Leu	Arg	Lys	Glu
				245					250					255	
Ala	Leu	Phe	Thr	His	Phe	Glu	Lys	Glu	Lys	Gln	His	Asp	lle	Arg	Ser
			260					265					270		
Phe	Phe	Val	Pro	Gln	Pro	Lys	Lys	Arg	Gln	Leu	Met	Thr	Ser	Cys	Asp
		275					280					285			
Glu	Ser	Lys	Arg	Phe	Arg	Glu	Glu	Asn	Thr	Val	Val	Ser	Ser	Asp	Pro
	290					295					300				
Thr	Lys	Thr	Ala	Ala	Arg	Asp	He	lle	Asp	Tyr	Glu	Ser	Asp	Val	Glu
305					310					315					320

Pro	Glu	Thr	Lys	Arg 325	Leu	Lys	Leu	Ala	A1a 330	Ser	Glu	Asp	His	335	Ser
Pro	Ser	Ģlu		Thr	Pro	Ser	Gln		Lys	Gln	He	Arg		Pro	Leu
			340					345					350		
Val	Glu		Val	Gln	Glu	Ala		Ala	Gln	Leu	Thr		Pro	Ala	Phe
		355					360					365			
Pro	Val	Glu	Gly	Trp	Gln	Cys	Ser	Leu	Cys	Thr	Tyr	lle	Asn	Asn	Ser
	370					375					380				
Glu	Leu	Pro	Tyr	Cys	Glu	Met	Cys	Glu	Thr	Pro	Gln	Gly	Ser	Ala	Val
385					390					395					400
Met	Gln	lle	Asp	Ser	Leu	Asn	His	He	Gln	Asp	Lys	Asn	Glu	Lys	Asp
				405					410					415	
Asp	Ser	Gln	Lys	Asp	Thr	Ser	Lys	Lys	Val	Gln	Thr	lle	Ser	Asp	Cys
			420					425					430		
Glu	Lys	Gln	Ala	Leu	Ala	Gln	Ser	Glu	Pro	Gly	Gln	Leu	Ala	Asp	Ser
		435					440					445			
Lys	Glu	Glu	Thr	Pro	Lys	Ile	Glu	Lys	Glu	Asp	Gly	Leu	Thr	Ser	Gln
	450					455					460				
Pro	Gly	Asn	Glu	Gln	Trp	Lys	Ser	Ser	Asp	Thr	Leu	Pro	Val	Tyr	Asp
465					470					475					480
Thr	Leu	Met	Phe	Cys	Ala	Ser	Arg	Asn	Thr	Asp	Arg	lle	His	lle	Tyr
				485					490					495	
Thr	Lys	Asp	Gly	Lys	Gln	Met	Ser	Cys	Asn	Phe	He	Pro	Leu	Asp	116
			500					505					510		
Lys	Leu	Asp	Leu	Trp	Glu	Asp	Leu	Pro	Ala	Ser	Phe	Gln	Leu	Lys	Gln
		515					520					525			
Tyr	Arg	Ser	Leu	lle	Leu	Arg	Phe	Val	Arg	Glu	Trp	Ser	Ser	Leu	Thr
	530					535					540				
Λla	Met	Lys	Gln	Arg	Ile	He	Arg	Lys	Ser	Gly	Gln	Leu	Phe	Cys	Ser
545					550					555					560
Pro	Пe	Leu	Ala	Leu	Glu	G1u	He	Thr	Lys	Gln	G]n	Thr	Lys	Gln	Asn
				565					570					575	
Cys	Thr	Lys	Arg	Tyr	He	Thr	Lys	Glu	Asp	Val	Ala	Val	Ala	Ser	Met
			580					585					590		
Asn	lvs	Ala	lvs	Asn	Val	Glv	Glv	His	Val	Arø	Leu	11e	Thr	Lvs	Gli

Ser Arg Pro Arg Asp Pro Phe Thr Lys Lys Leu Leu Glu Asp Gly Ala Cys Val Pro Phe Leu Asn Pro Tyr Thr Val Gln Ala Asp Leu Thr Val Lys Pro Ser Thr Ser Lys Gly Tyr Leu Gln Ala Val Asp Asn Glu Gly Asn Pro Leu Cys Leu Arg Cys Gln Gln Pro Thr Cys Gln Thr Lys Gln Ala Cys Lys Ala Asn Ser Trp Asp Ser Arg Phe Cys Ser Leu Lys Cys Gln Glu Glu Phe Trp Ile Arg Ser Asn Asn Ser Tyr Leu Arg Ala Lys Val Phe Glu Thr Glu His Gly Val Cys Gln Leu Cys Asn Val Asn Ala Gln Glu Leu Phe Leu Arg Leu Arg Asp Ala Pro Lys Ser Gln Arg Lys Asn Leu Leu Tyr Ala Thr Trp Thr Ser Lys Leu Pro Leu Glu Gln Leu Asn Glu Met lle Arg Asn Pro Gly Glu Gly His Phe Trp Gln Val Asp His Ile Lys Pro Val Tyr Gly Gly Gly Gly Gln Cys Ser Leu Asp Asn Leu Gln Thr Leu Cys Thr Val Cys His Lys Glu Arg Thr Ala Arg Gln Ala Lys Glu Arg Ser Gln Val Arg Arg Gln Ser Leu Ala Ser Lys His Gly Ser Asp Ile Thr Arg Phe Leu Val Lys Lys 

<210> 4824

<211> 994

<212> PRT

<213> Homo sapiens

<400	)> 44	17													
Met	Ser	Gln	Trp	Thr	Pro	Glu	Tyr	Lys	Glu	Leu	Tyr	Thr	Leu	Lys	Val
1				5					10					15	
Asp	Met	Lys	Ser	Glu	He	Pro	Ser	Asp	Ala	Pro	Lys	Thr	Gln	Glu	Ser
			20					25					30		
Leu	Lys	Gly	lle	Leu	Leu	His	Pro	Glu	Pro	Ile	Gly	Ala	Ala	Lys	Ser
		35					40					45			
Phe	Pro	Ala	Gly	Val	Glu	Met	Ile	Asn	Ser	Lys	Val	Gly	Asn	Glu	Phe
	50					55					60				
Ser	His	Leu	Cys	Asp	Asp	Ser	Gln	Lys	Gln	Glu	Lys	Glu	Met	Asn	G1 y
65					70					75					80
Asn	Gln	Gln	Glu	Gln	Glu	Lys	Ser	Leu	Val	Val	Arg	Lys	Lys	Arg	Lys
				85					90					95	
Ser	Gln	Gln	Ala	Gly	Pro	Ser	Tyr	Val	Gln	Asn	Cys	Val	Lys	Glu	Asn
			100					105					110		
Gln	Gly	He	Leu	Gly	Leu	Arg	Gln	His	Leu	Gly	Thr	Pro	Ser	Asp	Glu
		115					120					125			
Asp		Asp	Ser	Ser	Phe		Asp	Cys	Leu	Ser		Pro	Ser	Ser	Ser
_	130				~	135					140				
	His	Phe	Gly	Asp	Ser	Asp	Thr	Val	Thr		Asp	Glu	Asp	Lys	
145		., .			150	0.1	mı			155		,	0		160
Val	Ser	Val	Arg		Ser	GIN	Ihr	116		Asn	Ala	Lys	Ser		Ser
11.2	C	A 1 -	Δ	165	11.7	1	т	D	170	TI	C1	ть	C1	175	17 - 1
HIS	Ser	Ala		Ser	His	Lys	irp		Arg	Inr	GIU	Inr		ser	vai
Sor	C1v	Lou	180	Mot	Lys	Ara	Pro	185 Cvs	Lou	Hic	Clv	Sor	190	Lou	Λπα
361	Oly	195	Leu	Met	Lys	AI g	200	Cys	Leu	1115	Uly	205	361	Leu	A1 E
Aro	Leu		Cvs	Arø	Lys	Arσ		Val	lvs	Asn	Asn		Ser	Gln	Aro
8	210	,,,	0,0	8	13,0	215	7 110	, ,	13,0		220		501	0111	2
Thr		Lvs	Gln	Lvs	Glu		Ile	Leu	Met	Gln		Lvs	Lvs	Arg	Glu
225		,		3 -	230	0				235	0	-, -	-,-	0	240
	Leu	Ala	Arg	Arg	Lys	Tyr	Ala	Leu	Leu	Pro	Ser	Ser	Ser	Ser	
			-	245	-				250					255	
Ser	Glu	Asn	Asp	Leu	Ser	Ser	Glu	Ser	Ser	Ser	Ser	Ser	Ser	Thr	Glu
			260					265					270		

Gly	Glu	Glu 275	Asp	Leu	Phe	Val	Ser 280	Ala	Ser	Glu	Asn	His 285	Gln	Asn	Asn
Pro	Ala 290	Val	Pro	Ser	Gly	Ser 295	lle	Asp	Glu	Asp	Val 300	Val	Val	lle	Glu
Ala	Ser	Ser	Thr	Pro	Gln		Thr	Ala	Asn	Glu		He	Asn	Val	Thr
305					310					315					320
	Thr	Лsp	Ser	Glu	Val	G1u	He	Val	Thr	Val	Gly	Glu	Ser	Tyr	Arg
				325					330					335	
Ser	Arg	Ser	Thr	Leu	Gly	His	Ser	Arg	Ser	His	Trp	Ser	Gln	Gly	Ser
			340					345					350		
Ser	Ser	His	Ala	Ser	Arg	Pro	Gln	Glu-	Pro	Arg	Asn	Arg	Ser	Arg	He
		355					360					365			
Ser	Thr	Val	He	Gln	Pro	Leu	Arg	Gln	Asn	Ala	Ala	Glu	Val	Val	Asp
	370					375					380				
Leu	Thr	Val	Asp	Glu	Asp	Glu	Pro	Thr	Val	Val	Pro	Thr	Thr	Ser	Ala
385					390					395					400
Arg	Met	Glu	Ser	Gln	Ala	Thr	Ser	Ala	Ser	lle	Asn	Asn	Ser	Asn	Pro
				405					410					415	
Ser	Thr	Ser	Glu	Gln	Ala	Ser	Asp	Thr	Ala	Ser	Ala	Val	Thr	Ser	Ser
			420					425					430		
Gln	Pro	Ser	Thr	Val	Ser	Glu	Thr	Ser	Ala	Thr	Leu	Thr	Ser	Asn	Ser
		435					440					445			
Thr	Thr	G1 y	Thr	Ser	He		Asp	Asp	Ser	Arg		Thr	Thr	Ser	Ser
	450					455					460				
	Val	Thr	Glu	Thr		Pro	Pro	Ala	Met		Arg	Leu	Pro	Ser	
465				_	470		<b>a.</b> 1	0.1		475	0.7				480
Cys	Pro	GIn	His		Pro	Cys	Gly	Gly		Ser	GIn	Asn	His		Ala
,	C 1		D	485	TI	C	C	DI.	490	C1	11.5	C1	112.	495	Dl
Leu	Gly	HIS		HIS	Ihr	Ser	Cys		61n	GIn	HIS	ыу		HIS	Pne
C1	HG +	111:	500	11: -	113 -	u; a	u: a	505	Dwo	u; a	Dno	Alo	510	Duo	Vol
GIN	His	515	nis	ms	шѕ	птѕ	520	111.1	110	การ	110	525	vai	110	vai
Sar	Pro		Pho	Sor	Acn	Pro		Cve	Pro	Va1	Glu		Pro	Pro	Gln
.JE1	530	561	1 116	561	nsp	535	MIG	Cy.5	110	, 01	540	мв	110	110	0111
Val	Gln	Ala	Pro	Cvs	Glv		Asn	Ser	Ser	Ser		Thr	Ser	Tvr	His
545				- , - 2	550					555	3			- J =	560

Glu	Gln	Gln	Ala	Leu	Pro	Val	Asp	Leu	Ser	Asn	Ser	Gly	Пе	Arg	Ser
				565					570					575	
His	Gly	Ser	Gly	Ser	Phe	His	Gly	Ala	Ser	Ala	Phe	Asp	Pro	Cys	Cys
			580					585					590		
Pro	Val	Ser	Ser	Ser	Arg	Ala	Ala	He	Phe	Gly	His	Gln	Ala	Ala	Ala
		595					600					605			
Ala	Ala	Pro	Ser	Gln	Pro	Leu	Ser	Ser	lle	Asp	Gly	Tyr	Gly	Ser	Ser
	610					615					620				
Met	Val	Ala	Gln	Pro	Gln	Pro	Gln	Pro	Pro	Pro	Gln	Pro	Ser	Leu	Ser
625					630					635					640
Ser	Cys	Arg	His	Tyr	Met	Pro	Pro	Pro	Tyr	Ala	Ser	Leu	Thr	Arg	Pro
				645					650					655	
Leu	His	His	Gln	Ala	Ser	Ala	Cys	Pro	His	Ser	His	Gly	Asn	Pro	Pro
			660					665					670		
Pro	Gln	Thr	Gln	Pro	Pro	Pro	Gln	Val	Asp	Tyr	Val	lle	Pro	His	Pro
		675					680					685			
Val	His	Ala	Phe	His	Ser	Gln	He	Ser	Ser	His	Ala	Thr	Ser	His	Pro
	690					695					700				
Val	Ala	Pro	Pro	Pro	Pro	Thr	His	Leu	Ala	Ser	Thr	Ala	Ala	Pro	lle
705					710					715					720
Pro	Gln	His	Leu	Pro	Pro	Thr	His	Gln	Pro	He	Ser	His	His	lle	Pro
				725					730					735	
Ala	Thr	Ala	Pro	Pro	Ala	GIn	Arg	Leu	His	Pro	His	Glu	Val	Met	Gln
			740					745					750		
Arg	Met	Glu	Val	Gln	Arg	Arg	Arg	Met	Met	Gln	His	Pro	Thr	Arg	Ala
		755					760					765			
His	Glu	Arg	Pro	Pro	Pro	His	Pro	His	Arg	Met	His	Pro	Asn	Tyr	Gly
	770					775					780				
His	Gly	His	His	He	His	Val	Pro	Gln	Thr	Met	Ser	Ser	His	Pro	Arg
785					790					795					800
G1n	Ala	Pro	Glu	Arg	Ser	Ala	Trp	Glu	Leu	Gly	He	Glu	Ala	Gly	Val
				805					810					815	
Thr	Ala	Ala	Thr	Tyr	Thr	Pro	Gly	Ala	Leu	His	Pro	His	Leu	Ala	His
			820					825					830		
Tyr	His	Ala	Pro	Pro	Arg	Leu	His	His	Leu	Gln	Leu	Gly	Ala	Leu	Pro
		925					940					945			

Leu Met Val Pro Asp Met Ala Gly Tyr Pro His Ile Arg Tyr Ile Ser 855 Ser Gly Leu Asp Gly Thr Ser Phe Arg Gly Pro Phe Arg Gly Asn Phe 865 870 875 880 Glu Glu Leu Ile His Leu Glu Glu Arg Leu Gly Asn Val Asn Arg Gly 890 Ala Ser Gln Gly Thr Ile Glu Arg Cys Thr Tyr Pro His Lys Tyr Lys 900 905 Lys Val Thr Thr Asp Trp Phe Ser Gln Arg Lys Leu His Cys Lys Gln 915 920 925 Asp Gly Glu Glu Gly Thr Glu Glu Asp Thr Glu Glu Lys Cys Thr Ile 935 940 Cys Leu Ser Ile Leu Glu Glu Gly Glu Asp Val Arg Arg Leu Pro Cys 945 950 955 960 Met His Leu Phe His Gln Val Cys Val Asp Gln Trp Leu Val Thr Asn 970 965 Lys Lys Cys Pro Ile Cys Arg Val Asp Ile Glu Ala Gln Leu Pro Ser 985 990 Glu Ser

<210> 4825

<211> 105

<212> PRT

<213> Homo sapiens

<400> 448

 Met Glu Gln Ser Trp Thr Glu Asn Asp Phe Asp Glu Leu Arg Glu Glu

 1
 5
 10
 15

 Gly Phe Arg Arg Ser Asn Tyr Glu Leu Gln Glu Glu Glu Ile Gln Ile Lys
 20
 25
 30

 Gly Lys Glu Val Lys Asn Phe Glu Lys Asn Leu Asp Glu Cys Ile Thr
 35
 40
 45

Arg Ile Thr Asn Thr Glu Lys Cys Leu Glu Asp Leu Met Glu Leu Lys
50 55 60

Ala Lys Ala Arg Glu Leu Cys Glu Glu Cys Arg Ser Leu Arg Ser Arg
65 70 75 80

Cys Asp Gln Leu Glu Glu Arg Val Ser Val Met Glu Asp Glu Met Asn
85 90 95

Glu Met Lys Gln Glu Gly Lys Phe Arg
100 105

<210> 4826

<211> 136

<212> PRT

<213> Homo sapiens

<400> 449

Met Trp Leu Glu Val Arg Ala Leu Leu Leu Ser Cys Val Arg Val Phe 1 5 10 15

Gln His Gly Thr Asp Gly Ser Ser Gly His Ser Leu Ser Gln Gly Leu 20 25 30

Ala Arg Leu Arg His Asp Gly Pro Ser Pro Ala Leu Thr Thr Thr Lys
35 40 45

Ser Gly Arg Val Glu Phe Ala Val Asn Ser Ala Val Pro Met Glu Thr 50 55 60

Cys Val Val Ser Glu Gln Gln Tyr Leu Leu Glu Leu Val Gln Thr Pro 65 70 75 80

Arg Leu Pro Ser Gly Thr Thr Trp Ser Thr Ser Pro Arg Glu Ala Ala 85 90 95

Ala Leu Arg Gly Cys Pro Ala Gln Trp Pro Leu Ser Arg Val Ser Leu 100 105 110

Gln Glu Ala Ser Glu Gln Ser Leu Lys Pro Gly Met Ala Pro Ser Pro 115 120 125

Cys Cys His His Cys Val Leu Thr 130 135

<210> 4827

<211> 250

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<213> Homo sapiens
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Leu Pro Glu Pro Ala Glu Glu Glu Ser Gln Val Leu Arg Gly Thr Gly
                                 25
His Cys Lys Trp Phe Asn Val Arg Met Gly Phe Gly Phe Ile Ser Met
         35
                             40
                                                  45
Ile Asn Arg Glu Gly Ser Pro Leu Asp Ile Pro Val Asp Val Phe Val
                         55
                                             60
His Gln Ser Lys Leu Phe Met Glu Gly Phe Arg Ser Leu Lys Glu Gly
65
                     70
                                          75
Glu Pro Val Glu Phe Thr Phe Lys Lys Ser Ser Lys Gly Leu Glu Ser
Ile Arg Val Thr Gly Pro Gly Gly Ser Pro Cys Leu Gly Ser Glu Arg
            100
                                105
Arg Pro Lys Gly Lys Thr Leu Gln Lys Arg Lys Pro Lys Gly Asp Arg
        115
                            120
                                                 125
Cys Tyr Asn Cys Gly Gly Leu Asp His His Ala Lys Glu Cys Ser Leu
                        135
                                             140
Pro Pro Gln Pro Lys Lys Cys His Tyr Cys Gln Ser Ile Met His Met
145
                    150
                                         155
                                                             160
Val Ala Asn Cys Pro His Lys Asn Val Ala Gln Pro Pro Ala Ser Ser
                165
                                    170
Gln Gly Arg Gln Glu Ala Glu Ser Gln Pro Cys Thr Ser Thr Leu Pro
                                185
                                                     190
Arg Glu Val Gly Gly Gly His Gly Cys Thr Ser Pro Pro Phe Pro Gln
        195
                            200
                                                 205
Glu Ala Arg Ala Glu Ile Ser Glu Arg Ser Gly Arg Ser Pro Gln Glu
                        215
                                             220
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Ala Ser Ser Thr Lys Ser Ser 11e Ala Pro Glu Glu Gln Ser Lys Lys

Gly Pro Ser Val Gln Lys Arg Lys Lys Thr 245 250

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<211> 748
<212> PRT
<213> Homo sapiens
<400> 451
Met Lys Gln Met His Glu Trp Asn Phe Thr Ala Ser Ser Ile Lys Gly
                                     10
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Ile Ser Leu Ser Lys Phe Asp Glu Arg Cys Cys Phe Leu Tyr Val His
                                 25
Asp Asn Ser Asp Asp Phe Gln Ile Tyr Phe Ser Thr Glu Glu Gln Cys
         35
                                                  45
                             40
Ser Arg Phe Phe Ser Leu Val Lys Glu Met lle Thr Asn Thr Ala Gly
                                              60
                         55
Ser Thr Val Glu Leu Glu Gly Glu Thr Asp Gly Asp Thr Leu Glu Tyr
                                         75
                     70
Glu Tyr Asp His Asp Ala Asn Gly Glu Arg Val Val Leu Gly Lys Gly
                 85
Thr Tyr Gly lle Val Tyr Ala Gly Arg Asp Leu Ser Asn Gln Val Arg
                                105
lle Ala Ile Lys Glu Ile Pro Glu Arg Asp Ser Arg Tyr Ser Gln Pro
                                                 125
                            120
Leu His Glu Glu Ile Ala Leu His Lys Tyr Leu Lys His Arg Asn lle
    130
                        135
Val Gln Tyr Leu Gly Ser Val Ser Glu Asn Gly Tyr Ile Lys Ile Phe
                                        155
                    150
Met Glu Gln Val Pro Gly Gly Ser Leu Ser Ala Leu Leu Arg Ser Lys
                                     170
                165
Trp Gly Pro Met Lys Glu Pro Thr Ile Lys Phe Tyr Thr Lys Gln Ile
            180
                                185
Leu Glu Gly Leu Lys Tyr Leu His Glu Asn Gln 11e Val His Arg Asp
                             200
                                                 205
        195
lle Lys Gly Asp Asn Val Leu Val Asn Thr Tyr Ser Gly Val Val Lys
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<210> 4828

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Thr	Glu	Thr	Phe	Thr	Gly	Thr	Leu	G1n	Tyr	Met	Ala	Pro	Glu	Пе	He
				245					250					255	
Asp	Gln	Gly	Pro	Arg	Gly	Tyr	Gly	Ala	Pro	Ala	Asp	He	Trp	Ser	Leu
			260					265					270		
Gly	Cys	Thr	He	Ile	Glu	Met	Ala	Thr	Ser	Lys	Pro	Pro	Phe	His	Glu
		275					280					285			
Leu	Gly	Glu	Pro	Gln	Ala	Ala	Met	Phe	Lys	Val	Gly	Met	Phe	Lys	Πle
	290					295					300				
His	Pro	Glu	Ile	Pro	Glu	Ala	Leu	Ser	Ala	Glu	Ala	Arg	Ala	Phe	Ile
305					310					315					320
Leu	Ser	Cys	Phe	Glu	Pro	Asp	Pro	His	Lys	Arg	Ala	Thr	Thr	Ala	Glu
				325					330					335	
Leu	Leu	Arg	Glu	Gly	Phe	Leu	Arg	Gln	Val	Asn	Lys	Gly	Lys	Lys	Asn
			340					345					350		
Arg	Ile	Ala	Phe	Lys	Pro	Ser	Glu	Gly	Pro	Arg	Gly	Val	Val	Leu	Ala
		355					360					365			
Leu	Pro	Thr	Gln	Gly	Glu	Pro	Met	Ala	Thr	Ser	Ser	Ser	Glu	His	Gly
	370					375					380				
Ser	Val	Ser	Pro	Asp	Ser	Asp	Ala	Gln	Pro	Asp	Ala	Leu	Phe	Glu	Arg
385					390					395					400
Thr	Arg	Ala	Pro	Arg	His	His	Leu	Gly	His	Leu	Leu	Ser	Val	Pro	Asp
				405					410					415	
Glu	Ser	Ser	Ala	Leu	Glu	Asp	Arg	Gly	Leu	Ala	Ser	Ser	Pro	Glu	Asp
			420					425					430		
Arg	Asp	Gln	Gly	Leu	Phe	Leu	Leu	Arg	Lys	Asp	Ser	Glu	Arg	Arg	Ala
		435					440					445			
IJe	Leu	Tyr	Lys	He	Leu	Trp	Glu	Glu	Gln	Asn	Gln	Va]	Ala	Ser	Asn
	450					455					460				
Leu	Gln	Glu	Cys	Val	Ala	Gln	Ser	Ser	Glu	Glu	Leu	His	Leu	Ser	Val
465					470					475					480
Gly	His	lle	Lys	Gln	lle	lle	Gly	lle	Leu	Arg	Asp	Phe	He	Arg	Ser
				485					490					495	
Pro	Glu	His	Arg	Val	Met	Ala	Thr	Thr	lle	Ser	Lys	Leu	Lys	Val	Asp
			500					505					510		

Leu	Asp	Phe	Asp	Ser	Ser	Ser	He	Ser	Gln	Ile	His	Leu	Val	Leu	Phe
		515					520					525			
Gly	Phe	Gln	Asp	Ala	Val	Asn	Lys	Ile	Leu	Arg	Asn	His	Leu	lle	Arg
	530					535					540				
Pro	His	Trp	Met	Phe	Ala	Met	Asp	Asn	He	He	Arg	Arg	Ala	Val	Gln
545					550					555					560
Ala	Ala	Val	Thr	11e	Leu	Ile	Pro	Glu	Leu	Arg	Ala	His	Phe	Glu	Pro
				565					570					575	
Thr	Cys	Glu	Thr	Glu	Gly	Val	Asp	Lys	Asp	Met	Asp	Glu	Ala	Glu	Glu
			580					585					590		
Gly	Tyr	Pro	Pro	Ala	Thr	Gly	Pro	Gly	Gln	Glu	Ala	Gln	Pro	His	Gln
		595					600					605			
Gln	His	Leu	Ser	Leu	Gln	Leu	•Gly	Glu	Leu	Arg	Gln	Glu	Thr	Asn	Arg
	610					615					620				
Leu	Leu	Glu	His	Leu	Val	Glu	Lys	Glu	Arg	Glu	Tyr	Gln	Asn	Leu	Leu
625					630					635					640
Arg	Gln	Thr	Leu	Glu	Gln	Lys	Thr	Gln	Glu	Leu	Tyr	His	Leu	Gln	Leu
				645					650					655	
Lys	Leu	Lys	Ser	Asn	Cys	Ile	Thr	Glu	Asn	Pro	Ala	Gly	Pro	Tyr	Gly
			660					665					670		
Gln	Arg	Thr	Asp	Lys	Glu	Leu	He	Asp	Trp	Leu	Arg	Leu	Gln	Gly	Ala
		675					680					685			
Asp	Ala	Lys	Thr	lle	Glu	Lys	Ile	Val	Glu	Glu	Gly	Tyr	Thr	Leu	Ser
	690					695					700				
Asp	lle	Leu	Asn	Glu	He	Thr	Lys	Glu	Asp	Leu	Arg	Tyr	Leu	Arg	Leu
705					710					715					720
Arg	Gly	Gly	Leu	Leu	Cys	Arg	Leu	Trp	Ser	Ala	Val	Ser	Gln	Tyr	Arg
				725					730					735	
Arg	Ala	Gln	Glu	Ala	Ser	Glu	Thr	Lys	Asp	Lys	Ala				
			740					745							

<210> 4829

<211> 572

<212> PRT

<213> Homo sapiens

<400	)> 45	52													
Met	Cys	His	Phe	Lys	Leu	Va]	Ala	lle	Va]	Gly	Tyr	Leu	11e	Arg	Leu
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Ser	He	Lys	Ser	Ile	Gln	lle	Glu	Ala	Asp	Asn	Cys	Val	Thr	Asp	Ser
			20					25					30		
Leu	Thr	Ile	Tyr	Asp	Ser	Leu	Leu	Pro	Ile	Arg	Ser	Ser	He	Leu	Tyr
		35		•			40					45			
Arg	Ile	Cys	Glu	Pro	Thr	Arg	Thr	Leu	Met	Ser	Phe	Val	Ser	Thr	Asn
	50					55					60				
Asn	Leu	Met	Leu	Val	Thr	Phe	Lys	Ser	Pro	His	Ile	Arg	Arg	Leu	Ser
65					70					75					80
G] y	He	Arg	Ala	Tyr	Phe	Glu	Val	Ile	Pro	Glu	Gln	Lys	Cys	G] u	Asn
				85					90					95	
Thr	Val	Leu	Val	Lys	Asp	He	Thr	G1 y	Phe	Glu	Gly	Lys	lle	Ser	Ser
			100					105					110		
Pro	Tyr	Tyr	Pro	Ser	Tyr	Tyr	Pro	Pro	Lys	Cys	Lys	Cys	Thr	Trp	Lys
		115					120					125			
Phe	Gln	Thr	Ser	Leu	Ser	Thr	Leu	Gly	Ile	Ala	Leu	Lys	Phe	Tyr	Asn
	130					135					140				
Tyr	Ser	Ile	Thr	Lys	Lys	Ser	Met	Lys	Gly		Glu	His	Gly	Trp	
145					150					155					160
Glu	lle	Asn	Glu		Met	Tyr	Cys	Gly		Tyr	Met	Asp	His		Thr
				165			_		170					175	_
He	Phe	Arg		Pro	Ser	Pro	Leu		His	He	Gln	Leu		Cys	Ser
_			180			-		185					190		
Ser	Arg		Ser	Asp	Lys	Pro		Leu	Ala	Glu	Tyr		Ser	Tyr	Asn
	c	195	D		D	12 1	200	C	DI		0	205	C	C 1	
He		GIn	Pro	Cys	Pro		GFy	Ser	Phe	Arg	Cys	Ser	Ser	Gly	Leu
C	210	n.	C1	4.1	C1	215	C	Δ.	C1	17 1	220		<b>C</b> .	Di	
	vai	Pro	GIn	Ala		Arg	Cys	Asp	61 y		Asn	Asp	Cys	Phe	
225	C	Λ	C1	1	230	C	V - 1	C	D	235	D	41	Cur	Λ	240
uto	ser	нsр	GIU		rne	Cys	val	ser		GIN	Pro	Ala	Cys		ınr
S~~	S	Dha	122	245	u; ~	C1	Dwa	1	250	C	Asp	C1	Dh∽	255	A ==
Sel	261	1116	260	0111	11.1.5	оту	110	265	116	CyS	vsh	оту	270	пів	nsp
			200					200					- · ·		

Cys	Glu	Asn	Gly	Arg	Asp	Glu	Gln	Asn	Cys	Thr	Gln	Ser	He	Pro	Cys
		275					280					285			
Asn	Asn	Arg	Thr	Phe	Lys	Cys	Gly	Asn	Asp	lle	Cys	Phe	Arg	Lys	Gln
	290					295					300				
Asn	Ala	Lys	Cys	Asp	Gly	Thr	Val	Asp	Cys	Pro	Asp	Gly	Ser	Asp	Glu
305					310					315					320
Glu	Gly	Cys	Thr	Cys	Ser	Arg	Ser	Ser	Ser	Ala	Leu	His	Arg	11e	lle
				325					330					335	
Gly	Gly	Thr	Asp	Thr	Leu	Glu	Gly	Gly	Trp	Pro	Trp	Gln	Val	Ser	Leu
			340					345					350		
His	Phe	Val	Gly	Ser	Ala	Tyr	Cys	Gly	Ala	Ser	Val	He	Ser	Arg	Glu
		355					360					365			
Trp	Leu	Leu	Ser	Ala	Ala	His	Cys	Phe	His	Gly	Asn	Arg	Leu	Ser	Asp
	370					375					380				
Pro	Thr	Pro	Trp	Thr	Ala	His	Leu	Gly	Met	Tyr	Val	Gln	Gly	Asn	Ala
385					390					395					400
Lys	Phe	Val	Ser	Pro	Val	Arg	Arg	He	Val	Val	His	Glu	Tyr	Tyr	Asn
				405					410					415	
Ser	Gln	Thr	Phe	Asp	Tyr	Asp	He	Ala	Leu	Leu	Gln	Leu	Ser	11e	Ala
			420					425					430		
Trp	Pro	Glu	Thr	Leu	Lys	Gln	Leu	He	Gln	Pro	He	Cys	lle	Pro	Pro
		435					440					445			
Thr	Gly	Gln	Arg	Val	Arg	Ser	Gly	Glu	Lys	Cys	Trp	Val	Thr	Gly	Trp
	450					455					460				
Gly	Arg	Arg	His	Glu	Ala	Asp	Asn	Lys	Gly	Ser	Leu	Val	Leu	Gln	Gln
465					470					475					480
Ala	Glu	Val	Glu		He	Asp	G1n	Thr		Cys	Val	Ser	Thr	Tyr	Gly
				485					490					495	
He	He	Thr		Arg	Met	Leu	Cys		Gly	He	Met	Ser		Lys	Arg
			500					505					510		
Asp	Ala		Lys	Gly	Asp	Ser		Gly	Pro	Leu	Ser		Arg	Arg	Lys
_		515					520					525			
Ser		Gly	Lys	Trp	He	Leu	Thr	Gly	He	Val		Trp	Gly	His	Gly
0	530		ь		D)	535	0.7	., .	<b></b>	æ.	540				
	Gly	Arg	Pro	Asn		Pro	Gly	Val	Tyr		Arg	Val	Ser	Asn	
545					550					555					560

Val Pro Trp Ile His Lys Tyr Val Pro Ser Leu Leu 565 570

<210> 4830

<211> 134

<212> PRT

<213> Homo sapiens

<400> 453

Met Val Gly Leu Leu Phe His Ala Pro Lys Ala Pro Glu Met Ala Pro 1 5 10 15

Leu Arg Cys Cys lle Met Asn Lys Ile Ile Met Val Arg Arg Pro Lys
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Gln Ser Thr Ala Asp Tyr Gly Met Arg Thr Ser Gly Pro Val Glu Ser 35 40 45

Gly Leu Ser Ala Asp Ser Leu Gln Leu Leu Cys Ser Tyr Ala Ala lle 50 55 60

Lys Asn Ser Ala Glu Leu Leu Met Val Gly Pro Gln Gly Met Arg Pro 65 70 75 80

Ala Thr Gly Gln Asp Leu Leu Cys Arg Pro Cys Leu Ser His Asp Leu

85 90 95

Pro Gly Pro Leu His Pro Pro Arg Gly Leu Ser Gly Ser Ser Ser Leu
100 105 110

Leu Ile Ser Pro Arg Leu Gln Asp Val Ser Leu Gln Leu Val His Pro 115 120 125

Thr Pro Glu Glu Ser Phe 130

<210> 4831

<211> 184

<212> PRT

<213> Homo sapiens

<400> 454

Met Pro Phe Arg Lys Ala Cys Gly Pro Lys Leu Thr Asn Ser Pro Thr 10 Val Ile Val Met Val Gly Leu Pro Ala Arg Gly Lys Thr Tyr Ile Ser 20 25 Lys Lys Leu Thr Arg Tyr Leu Tyr Trp Ile Gly Val Pro Thr Lys Val 40 Phe Asn Val Gly Glu Tyr Arg Arg Glu Ala Val Lys Gln Tyr Ser Ser 55 Tyr Asn Phe Phe Arg Pro Asp Asn Glu Glu Ala Met Lys Val Arg Lys 65 70 Gln Cys Ala Leu Ala Ala Leu Arg Asp Val Lys Ser Tyr Leu Ala Lys 90 Glu Gly Gly Gln lle Ala Val Phe Asp Ala Thr Asn Thr Thr Arg Glu 100 105 110 Arg Arg His Met Ile Leu His Phe Ala Lys Glu Asn Asp Phe Lys Ala 125 120 Phe Phe Ile Glu Ser Val Cys Asp Asp Pro Thr Val Val Ala Ser Asn 135 140 Ile Met Gln Lys Ala Phe Gln Arg Asp Leu Ser Ala Thr Pro Leu Trp 145 155 160 Cys Cys Arg Lys Leu Lys Ser Pro Ala Arg Ile Thr Lys Thr Ala Thr 165 170 175 Arg Gln Lys Pro Trp Thr Thr Ser 180

<210> 4832

<211> 493

<212> PRT

<213> Homo sapiens

<400> 455

Met Gly Pro Thr Ser Val Leu Arg Ala Gly Leu Thr Pro Ser Cys Leu

1 5 10 15

Pro Pro Pro Pro Ser Gly Ala Thr Asn Gly Ser Val Ser Pro Leu Gly Arg
20 25 30

Ala	Gln	Arg	Val	Trp	Thr	Glu	Pro	Gly	Gly	Arg	Gly	Leu	His	Gly	Ala
		35					40					45			
Thr	Ala	Ala	Gly	Pro	Val	Ala	Ala	Ala	Cys	Pro	Leu	Leu	Ala	Val	Thr
	50					55					60				
Ala	Thr	Ala	Pro	Gly	Gln	Pro	Ser	Gly	Ala	Ser	Thr	Val	Trp	Val	Arg
65					70					75					80
Glu	Gly	Gly	Thr	Ala	Pro	Ala	Thr	Arg	Met	Thr	Val	Pro	Leu	Ala	Pro
				85					90					95	
Arg	Thr	Ser	Glu	Lys	Cys	Ser	Val	Leu	Asn	Leu	Thr	Ala	Ser	Leu	Ser
			100					105					110		
Val	Gly	Asn	Ser	Thr	Ser	Gly	Lys	Arg	Thr	Gly	Glu	Ala	Cys	Ser	Leu
		115					120					125			
Thr	Cys	Leu	Ala	Glu	Gly	Phe	Asn	Phe	Tyr	Thr	Glu	Arg	Ala	Ala	Ala
	130					135					140				
Val	Val	Asp	Gly	Thr	Pro	Cys	Arg	Pro	Asp	Thr	Val	Asp	Πle	Cys	Val
145					150					155					160
Ser	Gly	Glu	Cys	Lys	His	Val	Gly	Cys	Asp	Arg	Val	Leu	Gly	Ser	Asp
				165					170					175	
Leu	Arg	Glu	Asp	Lys	Cys	Arg	Val	Cys	Gly	Gly	Asp	Gly	Ser	Ala	Cys
			180					185					190		
Glu	Thr	He	Glu	Gly	Val	Phe	Ser	Pro	Ala	Ser	Pro	Gly	Ala	Gly	Tyr
		195					200					205			
Glu	Asp	Va]	Val	Trp	lle	Pro	Lys	Gly	Ser	Val	His	He	Phe	He	Gln
	210					215					220				
Asp	Leu	Asn	Leu	Ser	Leu	Asn	His	Leu	Ala	Leu	Lys	Gly	Asp	Gln	Glu
225					230					235					240
Ser	Leu	Leu	Leu	Glu	Gly	Leu	Pro	Gly	Thr	Pro	Gln	Pro	His	Arg	Leu
				245					250					255	
Pro	Leu	Ala	Gly	Thr	Thr	Phe	Gln	Leu	Arg	Gln	Gly	Pro	Asp	Gln	Val
			260					265					270		
Gln	Ser	Leu	Glu	Ala	Leu	G] y	Pro	lle	Asn	Ala	Ser	Leu	lle	Val	Met
		275					280					285			
Va]	Leu	Ala	Arg	Thr	Glu	Leu	Pro	Ala	Leu	Arg	Tyr	Arg	Phe	Asn	Ala
	290					295					300				
Pro	11e	Ala	Arg	Asp	Ser	Leu	Pro	Pro	Tyr	Ser	Trp	His	Tyr	Ala	Pro
305					310					315					320

Trp Thr Arg Cys Ser Ala Gln Cys Ala Gly Gly Ser Gln Val Gln Ala 325 330 Val Glu Cys Arg Asn Gln Leu Asp Gly Ser Ala Val Ala Pro His Tyr 340 345 350 Cys Ser Ala His Ser Lys Leu Pro Lys Arg Gln Arg Ala Cys Asn Thr 360 365 Glu Pro Cys Pro Pro Asp Trp Val Val Gly Asn Trp Ser Leu Cys Ser 370 375 380 Arg Ser Cys Asp Ala Gly Val Arg Ser Arg Ser Val Val Cys Gln Arg 385 390 395 400 Arg Val Ser Ala Ala Glu Glu Lys Ala Leu Asp Asp Ser Ala Cys Pro 405 410 Gln Pro Arg Pro Pro Val Leu Glu Ala Cys His Gly Pro Thr Cys Pro 420 425 430 Pro Glu Trp Ala Ala Leu Asp Trp Ser Glu Cys Thr Pro Ser Cys Gly 440 Pro Gly Leu Arg His Arg Val Val Leu Cys Lys Ser Ala Asp His Arg 455 460 Ala Thr Leu Pro Pro Ala His Cys Ser Pro Ala Ala Lys Pro Pro Ala 465 470 475 480 Thr Met Arg Cys Asn Leu Arg Arg Cys Pro Pro Ala Arg 485 490

<210> 4833

<211> 803

<212> PRT

<213> Homo sapiens

<400> 456

Met Ile Ser Ala Gln Cys Asn Leu Cys Leu Pro Gly Ser Gly Asp Ser

1 5 10 15

Cys Ala Ser Gly Ser Gln Leu Ala Gly Thr Thr Val Ala Gly Pro Ala 20 25 30

His Pro Glu Ser Leu Thr Leu Cys Ser Gly Glu Ala Glu Arg Arg Gly
35 40 45

Lys	Glu	Glu	Trp	Pro	Asp	Ser	His	His	Tyr	Pro	Gly	Pro	Thr	Pro	Ala
	50					55					60				
Pro	Glu	Ser	Ser	Asp	Gly	Pro	His	Lys	Val	Thr	Val	Leu	Ala	Thr	Met
65					70					75					80
Leu	Ser	Ser	Arg	Trp	Trp	Pro	Ser	Ser	Trp	Gly	lle	Leu	Gly	Leu	Gly
				85					90					95	
Pro	Arg	Ser	Pro	Pro	Arg	Gly	Ser	Gln	Leu	Cys	Ala	Leu	Tyr	Ala	Phe
			100					105					110		
Thr	Tyr	Thr	Gly	Ala	Asp	Gly	Gln	Gln	Val	Ser	Leu	Ala	Glu	G1y	Asp
		115					120					125			
Arg	Phe	Leu	Leu	Leu	Arg	Lys	Thr	Asn	Ser	Asp	Trp	Trp	Leu	Ala	Arg
	130					135					140				
Arg	Leu	Glu	Ala	Pro	Ser	Thr	Ser	Arg	Pro	He	Phe	Val	Pro	Ala	Ala
145					150					155					160
Tyr	Met	11e	Glu	Glu	Ser	He	Pro	Ser	Gln	Ser	Pro	Thr	Thr	Val	lle
				165					170					175	
Pro	Gly	Gln	Leu	Leu	Trp	Thr	Pro	Gly	Pro	Lys	Leu	Phe	His	Gly	Ser
			180					185					190		
Leu	Glu	Glu	Leu	Ser	Gln	Ala	Leu	Pro	Ser	Arg	Ala	Gln	Ala	Ser	Ser
		195					200					205			
G1u	Gln	Pro	Pro	Pro	Leu	Pro	Arg	Lys	Met	Cys	Arg	Ser	Val	Ser	Thr
	210					215					220				
Asp	Asn	Leu	Ser	Pro	Ser	Leu	Leu	Lys	Pro	Phe	Gln	Glu	Gly	Pro	Ser
225					230					235					240
Gly	Arg	Ser	Leu	Ser	Gln	Glu	Asn	Leu	Pro	Pro	Glu	Ala	Ser	Ala	Ser
				245					250					255	
Thr	Ala	Gly	Pro	Gln	Pro	Leu	Met	Ser	Glu	Pro	Pro	Val	Tyr	Cys	Asn
			260					265					270		
Leu	Val	Asp	Leu	Arg	Arg	Cys	Pro	Arg	Ser	Pro	Pro	Pro	Gly	Pro	Ala
		275					280					285			
Cys	Pro	Leu	Leu	Gln	Arg	Pro	Asp	Ala	Trp	Glu	Gln	His	Leu	Asp	Pro
	290					295					300				
Asn	Ser	Gly	Arg	Cys	Phe	Tyr	lle	Asn	Ser	Leu	Thr	Gly	Cys	Lys	Ser
305					310					315					320
Trp	Lys	Pro	Pro	Arg	Arg	Ser	Λrg	Ser	Glu	Thr	Asn	Pro	Gly	Ser	Met
				325					330					335	

Glu	Gly	Thr	Gln	Thr	Leu	Lys	Arg	Asn	Asn	Asp	Val	Leu	Gln	Pro	Gln
			340					345					350		
Ala	Lys	Gly	Phe	Arg	Ser	Asp	Thr	Gly	Thr	Pro	Glu	Pro	Leu	Asp	Pro
		355					360					365			
Gln	Gly	Ser	Leu	Ser	Leu	Ser	Gln	Arg	Thr	Ser	Gln	Leu	Asp	Pro	Pro
	370					375					380				
Ala	Leu	Gln	Ala	Pro	Arg	Pro	Leu	Pro	Gln	Leu	Leu	Asp	Asp	Pro	His
385					390					395					400
Glu	Val	Glu	Lys	Ser	Gly	Leu	Leu	Asn	Met	Thr	Lys	lle	Ala	Gln	Gly
				405					410					415	
Gly	Arg	Lys	Leu	Arg	Lys	Asn	Trp	Gly	Pro	Ser	Trp	Val	Val	Leu	Thr
			420					425					430		
Gly	Asn	Ser	Leu	Val	Phe	Tyr	Arg	Glu	Pro	Pro	Pro	Thr	Ala	Pro	Ser
		435					440					445			
Ala	Gly	Trp	Gly	Pro	Ala		Ser	Arg	Pro	Glu		Ser	Val	Asp	Leu
	450					455					460				
	Gly	Ala	Ala	Leu	Ala	His	Gly	Arg	His		Ser	Ser	Arg	Arg	
465					470					475					480
Val	Leu	His	He		Thr	He	Pro	Gly		Glu	Phe	Leu	Leu		Ser
		0.1	(P)	485				Tr.	490		4.3			495	., .
Asp	His	61u		Glu	Leu	Arg	Ala		His	Arg	Ala	Leu		Ihr	Val
3.3	C 1		500		4	C1		505	,	C1			510	C	C1
11e	Glu		Leu	Asp	Arg	Glu		Pro	Leu	61u	Leu		Leu	ser	61y
Can	61	515 Bna	Alo	C L.	Lou	Can	520	C1 v	Clu	Aan	C1	525	Clu	C1	Con
261	530	110	АТА	Glu	Leu	535	MIA	GIY	Giu	nsp	540	GIU	Glu	Giu	361
Clu		Val	Sor	Lvc	Pro		Lou	Ara	Lou	Sor		Ara	Ara	Sor	Sor
545	Leu	101	361	Lys	550	1.c.u	rea	ni g	Leu	555	261	ni g	Mg	561	560
	Arø	Glv	Pro	Glu	Gly	Thr	Glu	Gln	Asn		Val	Arg	Asn	Lvs	
110	5	01,	110	565	O. j		oru	0111	570	8	, (1)	111 6	11011	575	Вса
Lvs	Arg	Leu	He		Lys	Arg	Pro	Pro		Gln	Ser	Leu	Gln		Arg
,	6		580		•	0		585					590		0
Gly	Leu	Leu		Asp	Gln	Val	Phe	Gly	Cys	Gln	Leu	Glu	Ser	Leu	Cys
- 3		595	. 0				600	•	*			605			
Gln	Arg		Gly	Asp	Thr	Val		Ser	Phe	Leu	Arg	Leu	Cys	Пe	Ala
	610		-	-		615					620		•		

Ala Val Asp Lys Arg Gly Leu Asp Val Asp Gly Ile Tyr Arg Val Ser 625 630 Gly Asn Leu Ala Val Val Gln Lys Leu Arg Phe Leu Val Asp Arg Glu 650 Arg Ala Val Thr Ser Asp Gly Arg Tyr Val Phe Pro Glu Gln Pro Gly 665 Gln Glu Gly Arg Leu Asp Leu Asp Ser Thr Glu Trp Asp Asp 11e His 680 685 Val Val Thr Gly Ala Leu Lys Leu Phe Leu Arg Glu Leu Pro Gln Pro 700 690 695 Leu Val Pro Pro Leu Leu Leu Pro His Phe Arg Ala Ala Leu Ala Leu 710 715 Ser Gln Ile Gln Glu Leu Ile Gly Ser Met Pro Lys Pro Asn His Asp 730 725 735 Thr Leu Arg Tyr Leu Leu Glu His Leu Cys Arg Val Ile Ala His Ser 745 Asp Lys Asn Arg Met Thr Pro His Asn Leu Gly lle Val Phe Gly Pro 760 Thr Leu Phe Arg Pro Glu Gln Glu Thr Ser Asp Pro Ala Ala His Ala 770 775 780 Leu Tyr Pro Gly Gln Leu Val Gln Leu Met Leu Thr Asn Phe Thr Ser 790 795 800 785 Leu Phe Pro

<210> 4834

<211> 892

<212> PRT

<213> Homo sapiens

<400> 457

 Met Gln Asp Leu Lys Lys Tyr Lys Lys Lys Lys Gln Lys Arg Met Lys

 1
 5
 10
 15

 Ser Arg Lys Val Arg Lys Pro Thr Glu Asn Gln Glu Lys Asn Ile Arg
 20
 25
 30

Lys	Arg	Glu	Arg	Arg	Lys	Lys	Ser	Lys	Arg	Arg	Lys	Arg	Glu	Lys	His
		35					40					45			
Lys	His	Asn	Ser	Pro	Ser	Ser	Asp	Asp	Ser	Ser	Asp	Tyr	Ser	Leu	Asp
	50					55					60				
Ser	Asp	Val	Glu	His	Thr	Glu	Ser	Ser	His	Lys	Lys	Arg	Thr	Gly	Phe
65					70					75					80
Tyr	Arg	Asp	Tyr	Asp	lle	Pro	Phe	Thr	Gln	Arg	Gly	His	Ile	Ser	Gly
				85					90					95	
Ser	Tyr	He	Thr	Ser	Lys	Lys	Gly	Gln	His	Asn	Lys	Lys	Phe	Lys	Ser
			100					105					110		
Lys	Glu	Tyr	Asp	Glu	Tyr	Ser	Thr	Tyr	Ser	Asp	Asp	Asn	Phe	Gly	Asn
		115					120					125			
Tyr	Ser	Asp	Asp	Asn	Phe	G]y	Asn	Tyr	Gly	Gln	Glu	Thr	Glu	Glu	Asp
	130					135					140				
Phe	Ala	Asn	Gln	Leu	Lys	Gln	Tyr	Arg	Gln	Ala	Lys	Glu	Thr	Ser	Asn
145					150					155					160
lle	Ala	Leu	Gly	Ser	Ser	Phe	Ser	Lys	G] u	Ser	Gly	Lys	Lys	Gln	Arg
				165					170					175	
Met	Lys	Gly	Val	Gln	Gln	Gly	He	Glu	Gln	Arg	Val	Lys	Ser	Phe	Asn
			180					185					190		
Val	Gly	Arg	Gly	Arg	Gly	Leu	Pro	Lys	Lys	lle	Lys	Arg	Lys	Glu	Arg
		195					200					205			
Gly	Gly	Arg	Thr	Asn	Lys	Gly	Pro	Asn	Val	Phe	Ser	Val	Ser	Asp	Asp
	210					215					220				
Phe	Gln	Glu	Tyr	Asn	Lys	Pro	Gly	Lys	Lys	Trp	Lys	Val	Met	Thr	Gln
225					230					235					240
Glu	Phe	Пе	Asn	Gln	His	Thr	Val	Glu		Lys	Gly	Lys	Gln	He	Cys
				245					250					255	
Lys	Tyr	Phe	Leu	Glu	Gly	Arg	Cys		Lys	Gly	Asp	Gln	Cys	Lys	Phe
			260					265					270		
Asp	His		Ala	Glu	Leu	Glu	Lys	Arg	Lys	Glu	He		Lys	Phe	Tyr
		275					280					285			
Leu		Gly	Tyr	Cys	Thr	Lys	Gly	Glu	Asn	Cys		Tyr	Met	His	Asn
	290					295					300				
Glu	Phe	Pro	Cys	Lys		Tyr	His	Ser	Gly		Lys	Cys	Tyr	Gln	
305					310					315					320
															•

Asp	Asn	Cys	Lys	Phe	Ser	His	Asp	Asp	Leu	Thr	Lys	Glu	Thr	Lys	Lys
				325					330					335	
Leu	Leu	Asp	Lys	Val	Leu	Asn	Thr	Asp	Glu	Glu	Leu	lle	Λsn	Glu	Asp
			340					345					350		
Glu	Arg	Glu	Leu	Glu	Glu	Leu	Arg	Lys	Arg	Gly	He	Thr	Pro	Leu	Pro
		355					360					365			
Lys	Pro	Pro	Pro	Gly	Val	Gly	Leu	Leu	Pro	Thr	Pro	Pro	Glu	His	Phe
	370					375					380				
Pro	Phe	Ser	Asp	Pro	Glu	Asp	Asp	Phe	Gln	Thr	Asp	Phe	Ser	Asp	Asp
385					390					395					400
Phe	Arg	Lys	He	Pro	Ser	Leu	Phe	Glu	He	Val	Val	Lys	Pro	Thr	Val
				405					410					415	
Asp	Leu	Ala	His	Lys	He	Gly	Arg	Lys	Pro	Pro	Ala	Phe	Tyr	Thr	Ser
			420					425					430		
Ala	Ser	Pro	Pro	Gly	Pro	Gln	Phe	Gln	G1 y	Ser	Ser	Pro	His	Pro	Gln
		435					440					445			
His	lle	Tyr	Ser	Ser	Gly	Ser	Ser	Pro	Gly	Pro	Gly	Pro	Asn	Met	Ser
	450					455					460				
Gln	Gly	His	Ser	Ser	Pro	Val	Met	His	Pro	Gly	Ser	Pro	Gly	His	His
465					470	•				475					480
Pro	Cys	Ala	Gly	Pro	Pro	Gly	Leu	Pro		Pro	Gln	Ser	Pro		Leu
				485					490					495	
Pro	Pro	Gly		Pro	Glu	He	Val		Pro	Gln	Asn	GIn		G1 y	Val
			500					505					510		
Leu	Val		Pro	Asp	Thr	Ser		Thr	Pro	Pro	Ser		Gly	Gly	Ala
		515					520					525			
Tyr		Ser	Pro	Gly	Phe	Pro	Gly	His	Val	Met		Val	Pro	Arg	Glu
	530	_	_	_		535			0.1		540		0.7		
	His	Cys	Ser	Pro		Ser	Ser	Tyr	GIn		Ser	Pro	Gly	GJu	
545					550		~		0.7	555			0.1	5.1	560
Gln	Leu	Asn	Thr		Tyr	Glu	Ser	Leu		Asn	Pro	Ala	GIu		lyr
			<b></b>	565	0.1		0		570		151	C.1	15	575	
Asp	Asn	lyr		Ala	61n	His	Ser		HIS	Asn	Phe	GIn		Pro	Asn
	C	6.1	580	0.1		т	,,,	585	C I	יינו	4.7	C.I	590	C1	D
Asn	Ser		Asp	Ыÿ	Met	Trp		61 y	61u	Phe	Ala		GIn	GIn	Pro
		595					600					605			

Pro	Val	Val	Gln	Asp	Ser	Pro	Asn	His	Gly	Ser	Gly	Ser	Asp	G1 y	Ser
	610					615					620				
Ser	Thr	Arg	Thr	Gly	His	G1 y	Pro	Leu	Pro	Val	Pro	G1 y	Leu	Leu	Pro
625					630					635					640
Ala	Val	Gln	Arg	Ala	Leu	Phe	Val	Arg	Leu	Thr	Gln	Arg	Tyr	Gln	Glu
				645					650					655	
Asp	Glu	Glu	Gln	Thr	Ser	Thr	Gln	Pro	His	Arg	Ala	Pro	Ser	Lys	Glu
			660					665					670		
Glu	Asp	Asp	Thr	Val	Asn	Trp	Tyr	Ser	Ser	Ser	Glu	Glu	Glu	Glu	Gly
		675					680					685			
Ser	Ser	Val	Lys	Ser	lle	Leu	Lys	Thr	Leu	Gln	Lys	Gln	Thr	Glu	Thr
	690					695					700				
Leu	Arg	Asn	Gln	Gln	Gln	Pro	Ser	Thr	Glu	Leu	Ser	Thr	Pro	Thr	Asp
705					710					715					720
Pro	Arg	Leu	Ala	Lys	Glu	Lys	Ser	Lys	Gly	Asn	Gln	Va]	Val	Asp	Pro
				725					730					735	
Arg	Leu	Arg	Thr	Ile	Pro	Arg	Gln	Asp	lle	Arg	Lys	Pro	Ser	Glu	Ser
			740					745					750		
Ala	Pro		Asp	Leu	Arg	Leu		Trp	Asp	Pro	Arg		Leu	Arg	Gly
		755					760					765			
Asn		Ser	Gly	His	lle		Ser	Ser	Val	Gly		Ala	Lys	Phe	Asp
	770					775					780				
	His	His	Ala	Asn		Gly	Thr	Asn	Val		His	Lys	Arg	Gly	
785					790				_	795		_			800
Asp	Asp	Asp	Glu		Thr	Glu	Arg	Glu		Gly	GIu	Lys	Ala	Phe	Leu
	D	,		805	0	Б	61	7.7	810		0.1		Б	815	C
He	Pro	Leu		Ala	Ser	Pro	61 y		мет	Leu	GIn	Asp		Arg	Ser
C1			820	nı.	С.	11:	11.	825	1		11	ті	830	T1	1
GIn	Leu		GIn	Phe	Ser	HIS		Lys	Lys	Asp	116		Leu	Thr	Lys
D	Λ	835	A 1 o	1	11:	71.	840 V=1	Т	A 1 -	D., .	C1	845	1	1	Duo
110		rne	мта	LyS	1112		Vall	пр	мта	F10		ASP	Leu	Leu	110
Vol.	850	Lou	Dro	Lve	Dro	855	Dec	Vol	Som	Cor	860	Aan	Lou	Dro	Lau
val	1.10	Leu	110	LyS	110	ush	110	VdI	Sel	Ser	116	ASII	Leu	Pro	Leu
865					870					875					880
	Pro	ا ما	مال	Ala		Gla	Ara	ا ما	Acr		Len				000

885 890

<210> 4835

<211> 891 <212> PRT <213> Homo sapiens <400> 458 Met Ala Leu Thr Gln Gly Pro Leu Thr Phe Arg Asp Val Ala lle Glu Phe Ser Gln Glu Glu Trp Lys Ser Leu Asp Pro Val Gln Lys Ala Leu 25 Tyr Trp Asp Val Met Leu Glu Asn Tyr Arg Asn Leu Val Phe Leu Gly 35 40 45 Ile Leu Pro Lys Cys Met Thr Lys Glu Leu Pro Pro Ile Gly Asn Ser 55 60 Asn Thr Gly Glu Lys Cys Gln Thr Val Thr Leu Glu Arg His Glu Cys 70 65 75 80 Tyr Asp Val Glu Asn Phe Tyr Leu Arg Glu Ile Gln Lys Asn Leu Gln 90 Asp Leu Glu Phe Gln Trp Lys Asp Gly Glu lle Asn Tyr Lys Glu Val 105 Pro Met Thr Tyr Lys Asn Asn Leu Asn Gly Lys Arg Gly Gln His Ser · 125 115 120 Gln Glu Asp Val Glu Asn Lys Cys Ile Glu Asn Gln Leu Thr Leu Ser 135 140 Phe Gln Ser Arg Leu Thr Glu Leu Gln Lys Phe Gln Thr Glu Gly Lys 145 150 155 160 Ile Tyr Glu Cys Asn Gln Ser Glu Lys Thr Val Asn Asn Ser Ser Leu 165 170 Val Ser Pro Leu Gln Arg lle Leu Pro Ser Val Gln Thr Asn lle Ser 185 Lys Lys Tyr Glu Asn Glu Phe Leu Gln Leu Ser Leu Pro Thr Gln Leu 200 205 195 Glu Lys Thr His Ile Arg Glu Lys Pro Tyr Ile Cys Lys Gly Cys Gly

	210					215					220				
Lys	Ala	Phe	Arg	Val	Ser	Ser	Ser	Leu	lle	Asn	His	Gln	Met	Val	His
225					230			•		235				•	240
Thr	Thr	Glu	Lys	Pro	Tyr	Lys	Cys	Asn	G1u	Cys	Gly	Lys	Ala	Phe	His
				245					250		4.			255	
Arg	Gly	Ser	Leu	Leu	Thr	He	His	Gln	He	Val	His	Thr	Arg	Gly	Lys
			260					265					270		
Pro	Tyr	Gln	Cys	Gly	Val	Cys	Gly	Lys	He	Phe	Arg	Gln	Asn	Ser	Asp
		275					280					285			
Leu	Val	Asn	His	Arg	Arg	Ser	His	Thr	Gly	Glu	Lys	Pro	Tyr	Lys	Cys
	290					295					300				
Asn	Glu	Cys	Gly	Lys	Ser	Phe	Ser	Gln	Ser	Tyr	Asn	Leu	Ala	He	His
305					310					315					320
Gln	Arg	He	His	Thr	Gly	Glu	Lys	Pro	Tyr	Lys	Cys	Asn	Glu	Cys	Gly
				325					330					335	
Lys	Thr	Phe	Lys	Gln	Gly	Ser	Cys	Leu	Thr	Thr	His	Gln	He	He	His
			340					345					350		
Thr	Gly		Lys	Pro	Tyr	Gln		Asp	Ile	Cys	Gly		Val	Phe	Arg
		355					360					365			
Gln		Ser	Asn	Leu	Val		His	Gln	Arg	He		Thr	Gly	Glu	Lys
	370					375			_		380				
	Tyr	Lys	Cys	Asn		Cys	Gly	Lys	Ser		Ser	GIn	Ser	Ser	
385					390			~	0.1	395		Б	Tr.		400
Leu	Ala	Thr	His		Thr	Val	His	Ser		Asn	Lys	Pro	lyr	Lys	Cys
	01	0	C1	405	T)	DI			410	C	C	,	Т1	415	112 -
Asp	GIU	Cys		-			-	Arg 425		ser	ser	Leu		Thr	піѕ
C1	V = 1	T1.	120	The						The	Cue	Aan	430		Asp
GIN	vai	435	птѕ	1111	GIY	Giu	440	110	1 9 1	1111	Cys	445	vai	Cys	nsp
Luc	Vol		Sor	Gln	Λπσ	Sor		Lou	A1 a	Δηα	Hie		Δra	Gly	Hie
Lys	450	THE	261	Om	лів	455	OIII	Leu	Ма	Mg	460	OIH	Mg	Oly	11.13
Thr		Glu	Lve	Pro	Tyr		Cvs	Asn	Glo	Cvs		Lvs	Val	Phe	Ser
465	Gry	Olu	Lys	110	470	Lys	0,5	non	014	475	or,	13,5	, (1)	1110	480
	Thr	Ser	His	l.eu		Glv	His	Arø	Arg		His	Thr	Glv	Glu	
<b>5111</b>		501	0	485		2 3		6	490					495	-1-
Dana	Tyrs	Lva	Cva		Luc	Cvc	C1 v	Lvc		Dho	Lve	Gla	Gly		Lau

			500					505					510		
Leu	Thr	Arg	His	Lys	lle	lle	His	Thr	Arg	Glu	Lys	Arg	Tyr	Gln	Cys
		515					520					525			
Gly	Glu	Cys	Gly	Lys	Val	Phe	Ser	Glu	Asn	Ser	Cys	Leu	Val	Arg	His
	530					535					540				
Leu	Arg	lle	His	Thr	Gly	Glu	Gln	Pro	Tyr	Lys	Cys	Asn	Val	Cys	Gly
545					550					555					560
Lys	Val	Phe	Asn	Tyr	Ser	Gly	Asn	Leu	Ser	Ile	His	Lys	Arg	lle	Arg
				565					570					575	
Thr	Gly	Glu	Lys	Pro	Phe	Gln	Cys	Asn	Glu	Cys	Gly	Thr	Val	Phe	Arg
			580					585					590		
Asn	Tyr	Ser	Cys	Leu	Ala	Arg	His	Leu	Arg	He	His	Thr	Gly	Gln	Lys
		595					600					605			
Pro	Tyr	Lys	Cys	Asn	Val	Cys	Gly	Lys	Val	Phe	Asn	Asp	Ser	Gly	Asn
	610					615					620				
Leu	Ser	Asn	His	Lys	Arg	He	His	Thr	Gly	Glu	Lys	Pro	Phe	Gln	Cys
625					630					635					640
Asn	Glu	Cys	Gly	Lys	Va]	Phe	Ser	Tyr	Tyr	Ser	Cys	Leu	Ala	Arg	His
				645					650					655	
Arg	Lys	lle	His	Ala	Gly	Glu	Lys	Pro	Tyr	Lys	Cys	Asn	Asp	Cys	Gly
			660					665					670		
Lys	Ala	Tyr	Thr	Gln	Arg	Ser	Ser	Leu	Thr	Lys	His	Leu	Ile	He	His
		675					680					685			
Thr	Gly	Glu	Lys	Pro	Tyr	Asn	Cys	Asn	Glu	Phe	Gly	Gly	Ala	Phe	He
	690					695					700				
Gln	Ser	Ser	Lys	Leu	Ala	Arg	Tyr	His	Arg	Asn	Pro	Thr	Gly	Glu	Lys
705										715					720
Pro	His	Lys	Cys	Ser	His	Cys	Gly	Arg	Thr	Phe	Ser	His	He		Gly
				725					730					735	
Leu	Thr	Tyr	His	Gln	Arg	Arg	His		G1 y	Glu	Met	Pro		Lys	Cys
			740					745					750		
He	Glu	Cys	Gly	Gln	Val	Phe		Ser	Thr	Ser	Asn		Ala	Arg	His
		755					760					765			
Arg		He	His	Thr	Gly		Lys	Pro	Tyr	Lys		Asn	Glu	Cys	Gly
	770					775					780				
Lys	Val	Phe	Arg	His	Gln	Ser	Thr	Leu	Ala	Arg	His	Arg	Ser	He	His

800 785 790 795 Thr Gly Glu Lys Pro Tyr Val Cys Ser Glu Cys Gly Lys Ala Phe Arg 805 810 Val Arg Ser Ile Leu Val Asn His Gln Lys Met His Thr Gly Asp Lys 820 830 825 Pro Tyr Lys Cys Asn Glu Cys Gly Lys Ala Phe Ile Glu Arg Ser Lys 840 Leu Val Tyr His Gln Arg Asn His Thr Gly Glu Lys Pro Tyr Lys Cys 850 855 860 Ile Glu Cys Gly Lys Ala Phe Gly Arg Phe Ser Cys Leu Asn Lys His 870 875 880 Gln Met Ile His Ser Gly Glu Lys Pro Tyr Lys 885

<210> 4836

<211> 374

<212> PRT

<213> Homo sapiens

<400> 459

Met Ile Glu Tyr Gln Ile Pro Val Ser Phe Lys Asp Val Val Gly
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Phe Thr Gln Glu Glu Trp His Arg Leu Ser Pro Ala Gln Arg Ala Leu 20 25 30

Tyr Arg Asp Val Met Leu Glu Thr Tyr Ser Asn Leu Ala Ser Val Gly
35 40 45

Tyr Glu Gly Thr Lys Pro Asp Val Ile Leu Arg Leu Glu Glu Glu 50 55 60

Ala Pro Trp lle Gly Glu Ala Ala Cys Pro Gly Cys His Cys Trp Glu
65 70 75 80

Asp Ile Trp Arg Val Asn Ile Gln Arg Lys Arg Arg Gln Asp Met Leu 85 .90 95

Leu Arg Pro Gly Ala Ala lle Ser Lys Lys Thr Leu Pro Lys Glu Lys 100 105 110

Ser Cys Glu Tyr Asn Lys Phe Gly Lys Ile Ser Leu Leu Ser Thr Asp

		115					120					125			
Leu	Phe	Ser	Ser	lle	Gln	Ser	Pro	Ser	Asn	Trp	Asn	Pro	Cys	Gly	Lys
	130					135					140				
Asn	Leu	Asn	His	Asn	Leu	Asp	Leu	He	Gly	Phe	Lys	Arg	Asn	Cys	Ala
145					150					155					160
Lys	Lys	Gln	Asp	Glu	Cys	Tyr	Ala	Tyr	Gly	Lys	Leu	Leu	Gln	Arg	Ile
				165					170					175	
Asn	His	Gly	Arg	Arg	Pro	Asn	Gly	Glu	Lys	Pro	Arg	Gly	Cys	Ser	His
			180					185					190		
Cys	Glu	Lys	Ala	Phe	Thr	Gln	Asn	Pro	Ala	Leu	Met	Tyr	Lys	Pro	Ala
		195					200					205			
Val	Ser	Asp	Ser	Leu	Leu	Tyr	Lys	Arg	Lys	Arg	Val	Pro	Pro	Thr	Glu
	210					215					220				
Lys	Pro	His	Val	Cys	Ser	Glu	Cys	Gly	Lys	Ala	Phe	Cys	Tyr	Lys	Ser
225					230					235					240
G1u	Phe	lle	Arg	His	Gln	Arg	Ser	His	Thr	Gly	Glu	Lys	Pro	Tyr	Gly
				245					250					255	
Cys	Thr	Asp	Cys	Gly	Lys	Ala	Phe	Ser	His	Lys	Ser	Thr	Leu	Ile	Lys
			260					265					270		
His	Gln	Arg	He	His	Thr	Gly	Val	Arg	Pro	Phe	Glu	Cys	Phe	Phe	Cys
		275					280					285			
Gly	Lys	Ala	Phe	Thr	Gln	Lys	Ser	His	Arg	Thr	Glu	His	G1n	Arg	Thr
	290					295					300				
His	Thr	Gly	Glu	Arg	Pro	Phe	Val	Cys	Ser	Glu	Cys	Gly	Lys	Ser	Phe
305					310					315					320
G1 y	Glu	Lys	Ser	Tyr	Leu	Asn	Val	His	Arg	Lys	Met	His	Thr	Gly	Glu
				325					330					335	
Arg	Pro	Tyr	Arg	Cys	Arg	Glu	Cys	G1 y	Lys	Ser	Phe	Ser	Gln	Lys	Ser
			340					345					350		
Cys	Leu	Asn	Lys	His	Trp	Λrg	Thr	His	Phe	Gly	Glu	Ser	Ser	Leu	Arg
		355					360					365			
Ser	Lys	Ser	Ser	Asn	Thr										
	370														

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<211> 896
<212> PRT
<213> Homo sapiens
<400> 460
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Val Cys Ser Glu Cys Asn Gln Leu Tyr Gly Ser Leu Glu Glu Val Leu
             20
                                 25
                                                      30
Met His Gln Asn Ser His Val Pro Gln Gln His Phe Glu Leu Val Gly
         35
                             40
                                                 45
Val Ala Asp Pro Gly Val Thr Val Ala Thr Asp Thr Ala Ser Gly Thr
                         55
Gly Leu Tyr Gln Thr Leu Val Gln Glu Ser Gln Tyr Gln Cys Leu Glu
 65
                     70
                                         75
Cys Gly Gln Leu Leu Met Ser Pro Ser Gln Leu Leu Glu His Gln Glu
                                     90
Leu His Leu Lys Met Met Ala Pro Gln Glu Ala Val Pro Ala Glu Pro
                                                     110
            100
                                105
Ser Pro Lys Ala Pro Pro Leu Ser Ser Ser Thr 11e His Tyr Glu Cys
                            120
                                                 125
        115
Val Asp Cys Lys Ala Leu Phe Ala Ser Gln Glu Leu Trp Leu Asn His
                        135
                                            140
Arg Gln Thr His Leu Arg Ala Thr Pro Thr Lys Ala Pro Ala Pro Val
145
                    150
                                         155
                                                             160
Val Leu Gly Ser Pro Val Val Leu Gly Pro Pro Val Gly Gln Ala Arg
                165
                                    170
Val Ala Val Glu His Ser Tyr Arg Lys Ala Glu Glu Gly Glu Gly
                                185
                                                     190
            180
Ala Thr Val Pro Ser Ala Ala Ala Thr Thr Glu Val Val Thr Glu
                                                 205
        195
                            200
Val Glu Leu Leu Tyr Lys Cys Ser Glu Cys Ser Gln Leu Phe Gln
                        215
Leu Pro Ala Asp Phe Leu Glu His Gln Ala Thr His Phe Pro Ala Pro
225
                    230
                                         235
                                                             240
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Val Pro Glu Ser Gln Glu Pro Ala Leu Gln Gln Glu Val Gln Ala Ser

				245					250					255	
Ser	Pro	Ala	Glu	Val	Pro	Val	Ser	Gln	Pro	Asp	Pro	Leu	Pro	Ala	Ser
			260					265					270		
Asp	His	Ser	Tyr	Glu	Leu	Arg	Asn	G1y	Glu	Ala	Ile	Gly	Arg	Asp	Arg
		275					280					285			
Arg	Gly	Arg	Arg	Ala	Arg	Arg	Asn	Asn	Ser	Gly	Glu	Ala	Gly	Gly	Ala
	290					295					300				
Ala	Thr	Gln	Glu	Leu	Phe	Cys	Ser	Ala	Cys	Asp	Gln	Leu	Phe	Leu	Ser
305					310					315					320
Pro	His	Gln	Leu	Gln	Gln	His	Leu	Arg	Ser	His	Arg	Glu	G1 y	Val	Phe
				325					330					335	
Lys	Cys	Pro	Leu	Cys	Ser	Arg	Val	Phe	Pro	Ser	Pro	Ser	Ser	Leu	Asp
			340					345					350		
Gln	His	Leu	Gly	Asp	His	Ser	Ser	Glu	Ser	His	Phe	Leu	Cys	Val	Asp
		355					360					365			
Cys	Gly	Leu	Ala	Phe	Gly	Thr	Glu	Ala	Leu	Leu	Leu	Ala	His	Arg	Arg
	370					375					380				
Ala	His	Thr	Pro	Asn	Pro	Leu	His	Ser	Cys	Pro	Cys	Gly	Lys	Thr	Phe
385					390					395					400
Val	Asn	Leu	Thr	Lys	Phe	Leu	Tyr	His	Arg	Arg	Thr	His	Gly	Val	G1 y
				405					410					415	
Gly	Val	Pro	Leu	Pro	Thr	Thr	Pro	Val	Pro	Pro	Glu	Glu	Pro	Val	lle
			420					425					430		
Gly	Phe	Pro	Glu	Pro	Ala	Pro	Ala	Glu	Thr	Gly	Glu	Pro	Glu	Ala	Pro
		435					440					445			
Glu	Pro	Pro	Val	Ser	Glu	Glu	Thr	Ser	Ala	Gly	Pro	Ala	Ala	Pro	Gly
	450					455					460				
Thr	Tyr	Arg	Cys	Leu	Leu	Cys	Ser	Arg	Glu	Phe	Gly	Lys	Ala	Leu	Gln
465					470					475					480
Leu	Thr	Arg	His	Gln	Arg	Phe	Val	His	Arg	Leu	Glu	Arg	Arg	His	Lys
				485					490					495	
Cys	Ser	Пе	Cys	Gly	Lys	Met	Phe	Lys	Lys	Lys	Ser	His	Val	Arg	Asn
			500					505					510		
Arg	Leu	Λrg	Thr	His	Thr	Gly	Glu	Arg	Pro	Phe	Pro	Cys	Pro	Asp	Cys
		515					520					525			
Ser	Lys	Pro	Phe	Asn	Ser	Pro	Ala	Asn	Leu	Ala	Arg	His	Arg	Leu	Thr

	530					535					540				
His	Thr	Gly	Glu	Arg	Pro	Tyr	Arg	Cys	Gly	Asp	Cys	Gly	Lys	Ala	Phe
545					550					555					560
Thr	G1n	Ser	Ser	Thr	Leu	Arg	Gln	His	Arg	Leu	Val	His	Ala	Gln	His
				565					570					575	
Phe	Pro	Tyr	Arg	Cys	Gln	Glu	Cys	Gly	Val	Arg	Phe	His	Arg	Pro	Tyr
			580					585					590		
Arg	Leu	Leu	Met	His	Arg	Tyr	His	His	Thr	Gly	Glu	Tyr	Pro	Tyr	Lys
		595					600					605			
Cys	Arg	Glu	Cys	Pro	Arg	Ser	Phe	Leu	Leu	Arg	Arg	Leu	Leu	Glu	Val
	610					615					620				
His	Gln	Leu	Val	Val	His	Ala	Gly	Arg	Gln	Pro	His	Arg	Cys	Pro	Ser
625					630					635					640
Cys	Gly	Ala	Ala	Phe	Pro	Ser	Ser	Leu	Arg	Leu	Arg	Glu	His	Arg	Cys
				645					650					655	
Ala	Ala	Ala	Ala	Ala	Gln	Ala	Pro	Arg	Arg	Phe	Glu	Cys	Gly	Thr	Cys
			660					665					670		
Gly	Lys	Lys	Val	G1y	Ser	Ala	Ala	Arg	Leu	·Gln	Ala	His	Glu	Ala	Ala
		675					680					685			
His	Ala	Ala	Ala	Gly	Pro	Gly	Glu	Val	Leu	Ala	Lys	Glu	Pro	Pro	Ala
	690					695					700				
Pro	Arg	Ala	Pro	Arg	Ala	Thr	Arg	Ala	Pro	Val	Ala	Ser	Pro	Ala	Ala
705					710					715					720
Leu	Gly	Ser	Thr	Ala	Thr	Ala	Ser	Pro	Ala	Ala	Pro	Ala	Arg	Arg	Arg
				725					730					735	
Gly	Leu	G1u	Cys	Ser	Glu	Cys	Lys	Lys	Leu	Phe	Ser	Thr	Glu	Thr	Ser
			740					745					750		
Leu	Gln	Val	His	Arg	Arg	He	His	Thr	Gly	Glu	Arg		Tyr	Pro	Cys
		755					760					765			
									_						
Pro		Cys	Gly	Lys	Ala		Arg	GIn	Ser	Thr		Leu	Lys	Asp	His
	770			m.	0.7	775		Б	D.		780	0.1	17. 7		C1
-	Arg	Leu	His	Thr		Glu	Arg	Pro	Phe			Glu	Val	Cys	
785		ь.			790					795				7.3	800
Lys	Ala	Phe	Ala		Ser	Met	Arg	Leu			His	Arg	Arg		H1S
				805					810					815	

Thr Gly Glu Arg Pro Tyr Ser Cys Pro Asp Cys Gly Lys Ser Tyr Arg Ser Phe Ser Asn Leu Trp Lys His Arg Lys Thr His Gln Gln His Gln Ala Ala Val Arg Gln Gln Leu Ala Glu Ala Glu Ala Val Gly Leu Ala Val Met Glu Thr Ala Val Glu Ala Leu Pro Leu Val Glu Ala lle Glu Ile Tyr Pro Leu Ala Glu Ala Glu Gly Val Gln Ile Ser Gly 

<210> 4838

<211> 464

<212> PRT

<213> Homo sapiens

<400> 461

Met Phe Glu Asn Glu Ser Arg Lys Ile Phe Ser Glu Met Pro Glu Gly Glu Ser Ala Gln His Ser Asp Gly Glu Ser Asp Phe Glu Arg Asp Ala Gly lle Gln Arg Leu Gln Gly His Thr Pro Gly Glu Asp His Gly Glu Val Val Ser Gln Asp Arg Glu Val Gly Gln Leu Ile Gly Leu Gln Gly Thr Tyr Leu Gly Glu Lys Pro Tyr Glu Cys Pro Gln Cys Gly Lys Thr Phe Ser Pro Lys Ser His Leu Ile Thr His Glu Arg Thr His Thr Gly Glu Lys Tyr Tyr Lys Cys Asp Glu Cys Gly Lys Ser Phe Ser Asp Gly Ser Asn Phe Ser Arg His Gln Thr Thr His Thr Gly Glu Lys Pro Tyr Lys Cys Arg Asp Cys Gly Lys Ser Phe Ser Arg Ser Ala Asn Leu lle

Thr	His	Gln	Arg	lle	His	Thr	Gly	Glu	Lys	Pro	Phe	Gln	Cys	Ala	Glu
145					150					155					160
Cys	Gly	Lys	Ser	Phe	Ser	Arg	Ser	Pro	Asn	Leu	Ile	Ala	His	Gln	Arg
				165					170					175	
Thr	His	Thr	Gly	Glu	Lys	Pro	Tyr	Ser	Cys	Pro	Glu	Cys	Gly	Lys	Ser
			180					185					190		
Phe	Gly	Asn	Arg	Ser	Ser	Leu	Asn	Thr	His	Gln	Gly	He	His	Thr	Gly
		195					200					205			
Glu	Lys	Pro	Tyr	Glu	Cys	Lys	Glu	Cys	Gly	Glu	Ser	Phe	Ser	Tyr	Asn
	210					215					220				
Ser	Asn	Leu	He	Arg	His	Gln	Arg	He	His	Thr	G1 y	Glu	Glu	Pro	Tyr
225					230					235					240
Lys	Cys	Thr	Asp	Cys	Gly	Gln	Arg	Phe	Ser	Gln	Ser	Ser	Ala	Leu	lle
				245					250					255	
Thr	His	Arg	Arg	Thr	His	Thr	Gly	Glu	Lys	Pro	Tyr	Gln	Cys	Ser	Glu
			260					265					270		
Cys	Gly	Lys	Ser	Phe	Ser	Arg	Ser	Ser	Asn	Leu	Ala	Thr	His	Arg	Arg
		275					280					285			
Thr	His	Met	Val	Glu	Lys	Pro	Tyr	Lys	Cys	Gly	Val	Cys	G1 y	Lys	Ser
	290					295					300				
Phe	Ser	Gln	Ser	Ser	Ser	Leu	lle	Ala	His	Gln	Gly	Met	His	Thr	Gly
305					310					315					320
Glu	Lys	Pro	Tyr	Glu	Cys	Leu	Thr	Cys	Gly	Glu	Ser	Phe	Ser	Trp	Ser
				325					330					335	
Ser	Asn	Leu	Leu	Lys	His	Gln	Arg	He	His	Thr	Gly	Glu	Lys	Pro	Tyr
			340					345					350		
Lys	Cys	Ser	Glu	Cys	Gly	Lys	Cys	Phe	Ser	Gln	Arg	Ser	GIn	Leu	Val
		355					360					365			
Val	His	GIn	Arg	Thr	His	Thr	Gly	Glu	Lys	Pro	Tyr	Lys	Cys	Leu	Met
	370					375					380				
Cys	Gly	Lys	Ser	Phe	Ser	Arg	Gly	Ser	He	Leu	Val	Met	His	Gln	Arg
385					390					395					400
Ala	His	Leu	Gly	Asp	Lys	Pro	Tyr	Arg	Cys	Pro	Glu	Cys	Gly	Lys	Gly
				405					410					415	
Phe	Ser	Trp	Asn	Ser	Val	Leu	He	He	His	Gln	Arg	11e	His	Thr	Gly
			420					425					430		

Glu Lys Pro Tyr Lys Cys Pro Glu Cys Gly Lys Gly Phe Ser Asn Ser 435

Ser Asn Phe Ile Thr His Gln Arg Thr His Met Lys Glu Lys Leu Tyr 450

455

460

<210> 4839

<211> 347

<212> PRT

<213> Homo sapiens

<400> 462

Met Ser Gly Pro Gly Asn Lys Arg Ala Ala Gly Asp Gly Gly Ser Gly
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Pro Pro Glu Lys Lys Leu Ser Arg Glu Glu Lys Thr Thr Thr Leu
20 25 30

Ile Glu Pro Ile Arg Leu Gly Gly Ile Ser Ser Thr Glu Glu Met Asp
35 40 45

Leu Lys Val Leu Gln Phe Lys Asn Lys Lys Leu Ala Glu Arg Leu Glu 50 55 60

Gln Arg Gln Ala Cys Glu Asp Glu Leu Arg Glu Arg Ile Glu Lys Leu
65 70 75 80

Glu Lys Arg Gln Ala Thr Asp Asp Ala Thr Leu Leu lle Val Asn Arg

85 90 95

Tyr Trp Ala Gln Leu Asp Glu Thr Val Glu Ala Leu Leu Arg Cys His 100 105 110

Glu Ser Arg Ile Arg Glu Leu Glu Glu Arg Asp Arg Glu Ser Lys
115 120 125

Lys lle Ala Asp Glu Asp Ala Leu Arg Arg lle Arg Gln Ala Glu Glu 130 135 140

Gln Ile Glu His Leu Gln Arg Lys Leu Gly Ala Thr Lys Gln Glu Glu 145 150 155 160

Glu Ala Leu Leu Ser Glu Met Asp Ala Gln Leu Leu Thr Val Gln Lys 165 170 175

Leu Glu Glu Lys Glu Arg Ala Leu Gln Gly Ser Leu Gly Gly Val Glu 180 185 190

Lys	Glu	Leu	Thr	Leu	Arg	Ser	Gln	Ala	Leu	Glu	Leu	Asn	Lys	Arg	Lys
		195					200					205			
Ala	Val	Glu	Ala	Ala	Gln	Leu	Ala	Glu	Asp	Leu	Lys	Val	Gln	Leu	Glu
	210					215					220				
His	Val	Gln	Thr	Arg	Leu	Arg	Glu	He	Gln	Pro	Cys	Leu	Ala	Glu	Ser
225					230					235					240
Arg	Лlа	Ala	Arg	Glu	Lys	Glu	Ser	Phe	Asn	Leu	Lys	Arg	Ala	Gln	Glu
				245					250					255	
Asp	lle	Ser	Arg	Leu	Arg	Arg	Lys	Leu	Glu	Lys	Gln	Arg	Lys	Val	Glu
			260					265					270		
Val	Tyr	Ala	Asp	Ala	Asp	Glu	lle	Leu	Gln	Glu	Glu	lle	Lys	Glu	Tyr
		275					280					285			
Lys	Ala	Arg	Leu	Thr	Cys	Pro	Cys	Cys	Asn	Thr	Arg	Lys	Lys	Asp	Ala
	290					295					300				
Val	Leu	Thr	Lys	Cys	Phe	His	Val	Phe	Cys	Phe	Glu	Cys	Val	Arg	G1 y
305					310					315					320
Arg	Tyr	Glu	Ala	Arg	Gln	Arg	Lys	Cys	Pro	Lys	Cys	Asn	Ala	Ala	Ph€
				325					330					335	
Gly	Ala	His	Asp	Phe	His	Arg	Ile	Tyr	He	Ser					
			340					345							

<210> 4840

<211> 997

<212> PRT

<213> Homo sapiens

<400> 463

 Met
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 Ser
 Trp
 Arg
 Gln
 Val
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 Arg
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 Arg
 Ser
 Arg

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 10
 10
 15
 15

 Gly
 Arg
 Ala
 Ala
 Pro
 Ser
 Gly
 Asn
 Gly
 Val
 His
 Leu
 Arg
 Gly

 Ala
 Gly
 Gly
 Arg
 Glu
 Lys
 Gly
 Ser
 Val
 Gly
 Ala
 Val
 Pro
 Ser
 Gly

 Thr
 Ser
 Pro
 Gly
 Gly
 Val
 Ala
 Thr
 Ala
 Ala
 Ala
 Ala
 Gly
 Ser
 Arg
 His

 50
 55
 55
 60
 45
 Arg
 Gly
 Arg
 His

Ser	Pro	Ala	Gly	Ser	G1n	Ala	Leu	Gln	Thr	Thr	Ala	Ala	Ser	Glu	Leu
65					70					75					80
Met	Ser	Gln	Lys	Lys	Phe	Glu	Glu	Пe	Lys	Lys	Ala	Asn	Gln	Ala	Ala
				85					90					95	
Ala	Arg	Lys	Leu	Val	Glu	Glu	Gln	Phe	Ser	Ser	Ser	Ser	Glu	Glu	Gly
			100					105					110		
Asp	Glu	Asp	Phe	Glu	Gly	Lys	Gln	Gly	Lys	He	Leu	Ala	Asn	Thr	Phe
		115					120					125			
Ile	Thr	Tyr	Thr	Thr	G1n	Thr	Asp	Gly	Asp	Thr	Arg	Glu	Leu	Glu	Arg
	130					135					140				
Thr	Lys	Gln	Tyr	Val	Asn	Glu	Ala	Phe	Gln	Ala	Gly	Ala	Met	Thr	Cys
145					150					155					160
Leu	lle	Cys	11e	Ala	Ser	Val	Lys	Arg	Asn	Gln	Ala	Val	Trp	Ser	Cys
				165					170					175	
Ser	Gly	Cys	Phe	Cys	Ile	Phe	His	Met	Pro	Cys	Пe	Gln	Lys	Trp	Ala
			180					185					190		
Lys	Asp	Ser	Gln	Phe	Leu	Val	Ser	Ser	Val	Thr	Asp	Asp	Asp	Phe	Gly
		195					200					205			
Lys	Lys	Asp	Cys	Pro	Trp	Pro	Cys	Pro	Lys	Cys	Arg	Phe	Glu	Tyr	Lys
	210					215					220				
Arg	Ser	Glu	Thr	Pro	Ser	Arg	Tyr	Tyr	Cys	Tyr	Cys	Gly	Lys	Val	Glu
225					230					235					240
Asp	Pro	Pro	Leu	Asp	Pro	Trp	Leu	Val	Pro	His	Ser	Cys	Gly	Gln	Val
				245					250					255	
Cys	Glu	Arg	Glu	Phe	Lys	Pro	Pro	Cys	Gly	His	Lys	Cys	Leu	Leu	Leu
			260					265					270		
Cys	His	Pro	Gly	Pro	Cys	Pro	Pro	Cys	Pro	Lys	Met	Val	Thr	Thr	Thr
		275					280					285			
Cys		Cys	Lys	Lys	Ala		Pro	lle	Pro	Arg		Cys	Ser	Ala	Lys
	290					295					300				
	Trp	Ser	Cys	G1n		Pro	Cys	Gly	G1n		Leu	Leu	Cys	Gly	
305					310					315					320
His	Lys	Cys	Glu		Pro	Cys	His	Ala		Ser	Cys	G]n	Pro		Pro
				325	٠				330					335	
Arg	Val	Ser	Arg	Gln	Lys	Cys	Val	Cys	G1 y	Lys	Lys	Val	Ala	Glu	Arg

			340					345					350		
Ser	Cys	Ala	Ser	Pro	Leu	Trp	His	Cys	Asp	Gln	Val	Cys	Gly	Lys	Thr
		355					360					365			
Leu	Pro	Cys	Gly	Asn	His	Thr	Cys	Glu	Gln	Val	Cys	His	Val	Gly	Ala
	370	•				375					380				
Cys	Gly	Glu	Cys	Pro	Arg	Ser	Gly	Lys	Arg	Phe	Cys	Pro	Cys	Gln	Lys
385					390					395					400
Ser	Lys	Phe	Ser	Leu	Pro	Cys	Thr	Glu	Asp	Val	Pro	Thr	Cys	Gly	Asp
				405					410					415	
Ser	Cys	Asp	Lys	Val	Leu	Glu	Cys	Gly	Ile	His	Arg	Cys	Ser	Gln	Arg
			420					425					430		
Cys	His	Arg	Gly	Pro	Cys	Glu	Thr	Cys	Arg	Gln	Glu	Val	Glu	Lys	His
		435					440					445			
Cys	Arg	Cys	Gly	Lys	His	Thr	Lys	Arg	Met	Pro	Cys	His	Lys	Pro	Tyr
	450					455					460				
	Cys	Glu	Thr	Lys		Val	Lys	Met	Arg		Cys	Gln	Lys	His	
465					470					475					480
Cys	Arg	Arg	Lys		Cys	Pro	Gly	Asn		Pro	Pro	Cys	Asp		Asn
				485					490			_		495	_
Cys	Gly	Arg		Leu	Gly	Cys	Arg		His	Lys	Cys	Pro		Val	Cys
		6.1	500	0	Tr.	ъ	6	505	61	m.	., .		510	,	0
His	Arg		Ser	Cys	lyr	Pro		Pro	GJu	lhr	Val		Val	Lys	Cys
	C	515		TI		V. 1	520	v i	D	C	C1	525	C 1	Α.	TI
Asn		ыу	Asn	ınr	Lys	Val	inr	vaı	Pro	Cys		Arg	GIU	Arg	1 n.i.
The	530	Dno	Dno	Luc	Cva	535	C1	Cln	Cua	Con	540	Dro	Dro	Tha	Cuc
545		F10	F10	LyS	550	Lys	GIU	GIII	Cys	555		110	110	1111	560
		Thr	Sor	Gln		Lys	Hie	Ara	Cve			Glv	Ser	Cvs	
1113	111.5	1111	561	565	014	Lys	1113	mg	570	1113	, nc	Gry	361	575	110
Pro	Cvs	His	Gln		Cvs	Gln	lvs	Val		Glu	lvs	Cvs	G1 v		Leu
110	0,3	1110	580	110	Cyo	0.111	12,5	585	Leu	oru	12,5	Cyo	590	111.5	1.00
Cvs	Pro	Ala		Cvs	His	Asp	Gln		Leu	He	Lvs	Gln		Glv	Arg
-,		595					600					605			
His	Gln		Thr	Gly	Pro	Trp		Gln	Pro	Ser	Glu		Ala	Phe	Пe
	610			•		615					620				
Gln		Ala	Leu	Pro	Cvs	Pro	Pro	Cvs	Gln	Val		He	Pro	Met	G1 u

625					630					635					640
Cys	Leu	G1 y	Lys	His	Glu	Val	Ser	Pro	Leu	Pro	Cys	His	Ala	Val	Gly
				645					650					655	
Pro	Tyr	Ser	Cys	Lys	Arg	Val	Cys	Gly	Arg	He	Leu	Asp	Cys	Gln	Asn
			660					665					670		
His	Thr	Cys	Met	Lys	Glu	Cys	His	Lys	Val	Thr	Lys	Thr	Asp	Gly	Cys
		675					680					685			
Thr	Gly	Lys	Asn	Lys	Ala	Gly	Pro	Glu	Cys	Leu	His	Cys	G1u	Glu	Gly
	690					695					700				
Cys	Ser	Lys	Ser	Arg	Pro	Leu	Gly	Cys	Leu	His	Pro	Cys	lle	Leu	Arg
705					710					715					720
Cys	His	Pro	Gly	Glu	Cys	Pro	Pro	Cys	Val	Gln	Met	Leu	Arg	He	Lys
				725					730					735	
Cys	His	Cys	Lys	He	Thr	Ser	Leu	Tyr	Val	Glu	Cys	Arg	Lys	He	Thr
			740					745					750		
Thr	Ala	Asp	Val	Asn	Glu	Lys	Asn	Leu	Leu	Ser	Cys	Cys	Lys	Asn	Gln
		755					760					765			
Cys	Pro	Lys	Glu	Leu	Pro	Cys	Gly	His	Arg	Cys	Lys	Glu	Met	Cys	His
	770					775					780				
Pro	Gly	Glu	Cys	Pro	Phe	Asn	Cys	Asn	Gln	Lys	Val	Lys	Leu	Arg	Cys
785					790					795					800
Pro	Cys	Lys	Arg	Ile	Lys	Lys	Glu	Leu	Gln	Cys	Asn	Lys	Val	Arg	Glu
				805					810					815	
Asn	Gln	Val	Ser	lle	Glu	Cys	Asp	Thr	Thr	Cys	Lys	Glu	Met	Lys	Arg
			820					825					830		
Lys	Ala	Ser	Glu	lle	Lys	Glu	Ala	Glu	Ala	Lys	Ala	Ala	Leu	Glu	G] u
		835					840					845			
Glu	Lys	Arg	Arg	Gln	Gln	Ala	Glu	Leu	Glu	Ala	Phe	Glu	Asn	Arg	Leu
	850					855					860				
Lys	Thr	Asn	His	He	Gly	His	Thr	Gly	Tyr	Leu	Asn	Thr	Val	Thr	Val
865					870					875					880
Ser	Pro	Asp	Gly	Ser	Leu	Cys	Ala	Ser	Gly	Gly	Lys	Asp	Gly	Gln	Ala
				885					890					895	
Met	Leu	Trp		Leu	Asn	Glu	Gly	Lys	His	Leu	Tyr	Thr	Leu	Asp	Gly.
			900					905					910		
Gly	Asp	He	He	Asn	Ala	Leu	Cys	Phe	Ser	Pro	Asn	Arg	Tyr	Trp	Leu

Cys Ala Ala Thr Gly Pro Ser Ile Lys Ile Trp Asp Leu Glu Gly Lys lle lle Val Asp Glu Leu Lys Gln Glu Val lle Ser Thr Ser Ser Lys Ala Glu Pro Pro Gln Cys Thr Ser Leu Ala Trp Ser Ala Asp Gly Gln Thr Leu Phe Ala Gly Tyr Thr Asp Asn Leu Val Arg Val Trp Gln Val Thr lle Gly Thr Arg <210> 4841 <211> 709 <212> PRT <213> Homo sapiens <400> 464 Met Lys Arg Cys Arg Ser Asp Glu Leu Gln Gln Gln Gln Glu Glu Asp Gly Ala Gly Leu Glu Asp Ala Ala Ser His Leu Pro Gly Ala Asp Leu Arg Pro Gly Glu Thr Thr Gly Ala Asn Ser Ala Gly Gly Pro Thr Ser Asp Ala Gly Ala Ala Ala Ala Pro Asn Pro Gly Pro Arg Ser Lys Pro Pro Asp Leu Lys Lys Ile Gln Gln Leu Ser Glu Gly Ser Met Phe Gly His Gly Leu Lys His Leu Phe His Ser Arg Arg Ser Arg Glu Arg Glu His Gln Thr Ser Gln Asp Ser Gln Gln His Gln Gln Gln Gly Met Ser Asp His Asp Ser Pro Asp Glu Lys Glu Arg Ser Pro Glu

Met His Arg Val Ser Tyr Ala Met Ser Leu His Asp Leu Pro Ala Arg

	130					135					140				
Pro	Thr	Ala	Phe	Asn	Arg	Val	Leu	Gln	Gln	Ile	Arg	Ser	Arg	Pro	Ser
145					150					155					160
He	Lys	Arg	Gly	Ala	Ser	Leu	His	Ser	Ser	Ser	Gly	Gly	Gly	Ser	Ser
				165					170					175	
Gly	Ser	Ser	Ser	Arg	Arg	Thr	Lys	Ser	Ser	Ser	Leu	Glu	Pro	Gln	Arg
			180					185					190		
Gly	Ser	Pro	His	Leu	Leu	Arg	Lys	Ala	Pro	Gln	Asp	Ser	Ser	Leu	Ala
		195					200					205			
Ala	He	Leu	His	Gln	His	Gln	Cys	Arg	Pro	Arg	Ser	Ser	Ser	Thr	Thr
	210					215					220				
Asp	Thr	Ala	Leu	Leu	Leu	Ala	Asp	Gly	Ser	Asn	Val	Tyr	Leu	Leu	Ala
225					230					235					240
G] u	G1u	Ala	Glu	Gly	He	Gly	Asp	Lys	Val	Asp	Lys	Gly	Asp	Leu	Val
				245					250					255	
Ala	Leu	Ser		Pro	Ala	Gly	His		Asp	Thr	Asp	Gly		He	Ser
			260					265					270		
Leu	Asp		Pro	Asp	Gly	Ala		Asp	Pro	Gln	Arg		Lys	Ala	Ala
		275					280	_				285			
He		His	Leu	His	Gln		He	Leu	Lys	He		Glu	GIn	Лe	Lys
7.1	290	0.1	0.1			295			V 1	4.7	300	T		,	,
	Glu	GIN	Glu	Ala	Arg	Asp	Asp	Asn	vai		GIU	ıyr	Leu	Lys	
305	A 0.10	Aan	A10	Aan	310	Cla	Cln	Vo.1	Con	315	110	Luc	Cln	Vo.1	320 Pho
АТА	ASII	ASII	нта	325	Lys	GIII	OIII	vai	330	AIg	116	Lys	GIII	335	rne
Glu	lve	lve	Aen		Lys	Ser	Ala	Gln		He	Ala	Gln	Leu		lve
Olu	Lys	Lyo	340	0111	Lys	561	MIG	345		110	MIG	GIII	350	1113	Lys
Lvs	Leu	Glu		Tvr	Arg	Arg	Arg			Glu	lle	Glu		Asn	Glv
2,0		355		- , -	**** 6	0	360		_, _			365			
Pro	Ser		Gln	Pro	Lys	Asp	Val	Leu	Arg	Asp	Met	Gln	Gln	Gly	Leu
	370				·	375					380				
Lys	Asp	Val	Gly	Ala	Asn	Val	Arg	Ala	Gly	lle	Ser	Gly	Phe	Gly	Gly
385					390					395					400
G1 y	Val	Val	G1u	Gly	Val	Lys	Gly	Ser	Leu	Ser	Gly	Leu	Ser	Gln	Ala
				405					410					415	
Thr	Hic	Thr	Ala	Val	Val	Sor	lve	Pro	Ara	Glu	Pho	Λla	Ser	Len	He

			420					425					430		
Arg	Asn	Lys	Phe	Gly	Ser	Ala	Asp	Asn	He	Ala	His	Leu	Lys	Asp	Pro
		435					440					445			
Leu	Glu	Asp	Gly	Pro	Pro	Glu	Glu	Ala	Ala	Arg	Ala	Leu	Ser	Gly	Ser
	450					455					460				
Ala	Thr	Leu	Val	Ser	Ser	Pro	Lys	Tyr	Gly	Ser	Asp	Asp	Glu	Cys	Ser
465					470					475					480
Ser	Ala	Ser	Ala	Ser	Ser	Ala	Gly	Ala	Gly	Ser	Asn	Ser	Gly	Ala	Gly
				485					490					495	
Pro	Gly	Gly	Ala	Leu	Gly	Ser	Pro	Lys	Ser	Asn	Ala	Leu	Tyr	Gly	Ala
			500					505					510		
Pro	Gly	Asn	Leu	Asp	Ala	Leu	Leu	Glu	Glu	Leu	Arg	Glu	Ile	Lys	Glu
		515					520					525			
Gly	Gln	Ser	His	Leu	Glu	Asp	Ser	Met	Glu	Asp	Leu	Lys	Thr	Gln	Leu
	530					535					540				
Gln	Arg	Asp	Tyr	Thr	Tyr	Met	Thr	Gln	Cys	Leu	Gln	Glu	Glu	Arg	Tyr
545					550					555					560
Arg	Tyr	Glu	Arg	Leu	Glu	Glu	Gln	Leu	Asn	Asp	Leu	Thr	Glu	Leu	His
				565					570					575	
Gln	Asn	Glu	Met	Thr	Asn	Leu	Lys	Gln	Glu	Leu	Ala	Ser	Met	Glu	Glu
			580					585					590		
Lys	Val	Ala	Tyr	Gln	Ser	Tyr	Glu	Arg	Ala	Arg	Asp	Ile	Gln	Glu	Ala
		595					600					605			
Val	Glu	Ser	Cys	Leu	Thr	Arg	Val	Thr	Lys	Leu	Glu	Leu	Gln	Gln	Gln
	610					615					620				
Gln	Gln	Gln	Val	Val	Gln	Leu	Glu	Gly	Val	Glu	Asn	Ala	Asn	Ala	Arg
625					630					635					640
Ala	Leu	Leu	Gly	Lys	Phe	He	Asn	Val	lle	Leu	Ala	Leu	Met	Ala	Val
				645					650					655	
Leu	Leu	Val	Phe	Val	Ser	Thr	lle	Ala	Asn	Phe	lle	Thr	Pro	Leu	Met
			660					665					670		
Lys	Thr	Arg	Leu	Arg	lle	Thr	Ser	Thr	Thr	Leu	Leu	Val	Leu	Val	Leu
		675					680					685			
Phe	Leu	Leu	Trp	Lys	His	Trp	Asp	Ser	Leu	Thr	Tyr	Leu	Leu	Glu	His
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Val	Leu	Leu	Pro	Ser											

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Phe Asn Gln Asp Leu Trp Pro Glu Gln Ser Ile Lys Asp Ser Phe Gln
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Lys Leu 11e Leu Arg Arg His Lys Lys Cys Gly His Asp Asn Leu Gln
                             40
Leu Lys Lys Gly Cys Glu Ser Val Asp Lys Cys Lys Val His Lys Arg
                         55
                                             60
Gly Tyr Asn Gly Leu Asn Gln Cys Leu Thr Thr Gln Ser Lys Met
                     70
65
                                         75
                                                              80
Phe Gln Cys Asp Lys His Gly Lys Val Phe His Gln Phe Ser Asn Thr
                 85
                                     90
Asn Arg His Lys Ile Arg His Thr Gly Lys Asn Pro Cys Lys Phe Thr
                                105
Glu Cys Gly Lys Ala Phe Asn Arg Ser Ser Thr Phe Thr Thr His Lys
        115
                            120
Lys lle His Thr Gly Glu Lys Pro Tyr Lys Cys lle Glu Cys Gly Lys
                        135
                                            140
Ala Phe Asn Arg Ser Ser His Leu Thr Thr His Lys lle lle His Thr
                                                             160
145
                    150
                                        155
Gly Glu Lys Arg Tyr Lys Cys Glu Asp Cys Gly Lys Ala Phe Asn Arg
                165
                                    170
Ser Ser Asn Leu Thr Thr His Lys Lys Ile His Thr Gly Glu Lys Pro
            180
                                185
                                                    190
Tyr Lys Cys Glu Glu Cys Gly Lys Ala Phe Lys Arg Ser Ser Ile Leu
        195
                            200
                                                 205
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Thr Thr His Lys Arg lle His Thr Gly Glu Lys Pro Tyr Lys Cys Glu

Glu Cys Gly Lys Val Phe Lys Tyr Leu Ser Ser Leu Ser Thr His Lys Ile Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Glu Glu Cys Gly Lys Ala Phe Asn Trp Ser Ser His Leu Thr Thr His Lys Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Glu Glu Cys Gly Lys Gly Phe Lys Tyr Ser Ser Thr Leu Thr Lys His Lys Ile Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Glu Glu Cys Arg Ser Leu Arg Ser Gln Cys Asp Gln Leu Glu Glu Arg Val Ser Val Met Glu Asp Glu Met Asn Gly Met Lys 

<210> 4843

<211> 505

<212> PRT

<213> Homo sapiens

<400> 466

Met Lys Ala Gln Arg Glu Arg Leu Gln Ile Pro Gly Leu Thr Leu Asp Leu Thr Pro Arg Ser Leu Ser Pro Thr Pro Ser Ser Pro Gly Ser Pro Cys Ser Pro Leu Leu Ala Phe His Phe Trp Ser Cys Arg Thr Ser Asn Arg Lys Ser Leu lle Gly Asn Gly Gln Ser Pro Ala Leu Pro Arg Pro His Ser Pro Leu Ser Ala His Ala Gly Asn Ser Pro Gln Asp Ser Pro Arg Asn Phe Ser Pro Ser Ala Ser Ala His Phe Ser Phe Ala Arg Arg 

Asn Asp Arg Thr Asp Gly Arg Arg Trp Ser Leu Ala Ser Leu Pro Ser

			100					105					110		
Ser	Gly	Tyr	Gly	Thr	Asn	Thr	Pro	Ser	Ser	Thr	Val	Ser	Ser	Ser	Cys
		115					120					125			
Ser	Ser	Gln	Glu	Lys	Leu	His	Gln	Leu	Pro	Tyr	Gln	Pro	Thr	Pro	Asp
	130					135					140				
Glu	Leu	His	Phe	Leu	Ser	Lys	His	Phe	Cys	Thr	Thr	Glu	Ser	lle	Ala
145					150					155					160
Thr	Glu	Asn	Arg	Cys	Arg	Asn	Thr	Pro	Met	His	Pro	Arg	Ser	Arg	Ser
				165					170					175	
Leu	Ser	Pro	Gly	Arg	Ser	Pro	Ala	Cys	Cys	Asp	His	Glu	Ile	Ile	Met
			180					185					190		
Met	Asn	His	Val	Tyr	Lys	Glu	Arg	Phe	Pro	Lys	Ala	Thr	Ala	Gln	Met
		195					200					205			
Glu	Glu	Arg	Leu	Lys	Glu	He	Пе	Thr	Ser	Tyr	Ser	Pro	Asp	Asn	Val
	210					215					220				
Leu	Pro	Leu	Ala	Asp	Gly	Val	Leu	Ser	Phe	Thr	His	His	Gln	Пе	He
225					230					235					240
Glu	Leu	Ala	Arg	Asp	Cys	Leu	Asp	Lys	Ser	His	Gln	Gly	Leu	Ile	Thr
				245					250					255	
Ser	Arg	Tyr	Phe	Leu	Glu	Leu	Gln	His	Lys	Leu	Asp	Lys	Leu	Leu	Gln
			260					265					270		
Glu	Ala	His	Asp	Arg	Ser	Glu	Ser	Gly	Glu	Leu	Ala	Phe	He	Lys	Gln
		275					280					285			
Leu	Val	Arg	Lys	He	Leu	He	Val	He	Ala	Arg	Pro	Ala	Arg	Leu	Leu
	290					295					300				
Glu	Cys	Leu	Glu	Phe	Asp	Pro	Glu	Glu	Phe	Tyr	Tyr	Leu	Leu	G]u	
305					310					315					320
Ala	Glu	Gly	His		Lys	Glu	Gly	Gln		He	Lys	Thr	Asp		Pro
				325					330					335	
Arg	Tyr	lle		Ser	Gln	Leu	Gly		Asn	Lys	Asp	Pro	Leu	Glu	Glu
			340		_	_		345					350		
Met	Ala		Leu	G]y	Asn	Tyr		Ser	GI y	Thr	Ala		Thr	Pro	G] u
		355					360		. 7	2		365			
Thr		Glu	Ser	Val	Ser		Ser	Asn	Ala	Ser		Lys	Leu	Arg	Arg
1	370	Λ	C1-	C	Λ	375	C1.	ть	11.	1	380	11.	Ser	۸	C1
1 77 5	1110	Aro	1 1 1 1 1	Ser	ASD	rne	(1111	inr	116,	LVS	1 611	116	.50 r	ASD	ULLV

385					390					395					400
Ala	Tyr	Gly	Ala	Val	Tyr	Phe	Val	Arg	His	Lys	Glu	Ser	Arg	Gln	Arg
				405					410					415	
Phe	Ala	Met	Lys	Lys	He	Asn	Lys	Gln	Asn	Leu	He	Leu	Arg	Asn	Gln
			420					425					430		
He	Gln	Gln	Ala	Phe	Val	Glu	Arg	Asp	He	Leu	Thr	Phe	Ala	Glu	Asn
		435					440					445			
Pro	Phe	Val	Val	Ser	Met	Tyr	Cys	Ser	Phe	Glu	Thr	Arg	Arg	His	Leu
	450					455					460				
Cys	Met	Val	Met	Glu	Tyr	Val	Glu	Gly	Gly	Asp	Cys	Ala	Thr	Leu	Met
465					470					475					480
Lys	Asn	Thr	Gly	Pro	Leu	Pro	Val	Asp	Met	Ala	Arg	Met	Tyr	Phe	Ala
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Glu	Thr	Val	Leu	Ala	Leu	Glu	Phe	Thr							
			500					505							
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Met Arg Glu Lys Ser Phe Gln Cys Asn Glu Ser Gly Lys Ala Phe Asn Tyr Ser Ser Leu Leu Arg Lys His Gln Ile Ile His Leu Gly Glu Lys Gln Tyr Lys Cys Asp Val Cys Gly Lys Val Phe Asn Arg Lys Arg Asn Leu Val Cys His Arg Arg Cys His Thr Gly Glu Lys Pro Tyr Arg Cys Asn Glu Cys Gly Lys Thr Phe Ser Gln Thr Tyr Ser Leu Thr Cys His Arg Arg Leu His Thr Gly Glu Lys Pro Tyr Lys Cys Glu Glu Cys Asp 

<400> 467

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Ala	G1y	Glu	Lys	Pro	Tyr	Lys	Cys	Asn	Glu	Cys	Gly	Lys	Th.r	Phe	Ser
		115					120					125			
Gln	Thr	Ser	Ser	Leu	Thr	Cys	His	Arg	Arg	Leu	His	Thr	Gly	Glu	Lys
	130					135					140				
Pro	Phe	Lys	Cys	Asn	Glu	Cys	Gly	Lys	Thr	Phe	Ser	Arg	Lys	Ser	Ser
145					150					155					160
Leu	Thr	Cys	His	His	Arg	Leu	His	Thr	Gly	Glu	Lys	Pro	Tyr	Lys	Cys
				165					170					175	
Asn	Glu	Cys	Gly	Lys	Thr	Phe	Ser	Gln	Glu	Leu	Thr	Leu	Lys	Cys	His
			180					185					190		
Arg	Arg	Leu	His	Thr	Gly	Glu	Lys	Pro	Tyr	Lys	Cys	Asn	Glu	Cys	Gly
		195					200					205			
Lys	Val	Phe	Asn	Lys	Lys	Ala	Asn	Leu	Ala	Arg	His	His	Arg	Leu	His
	210					215					220				
Ser	Gly	Glu	Lys	Pro	Tyr	Lys	Cys	Thr	Glu	Cys	Val	Lys	Thr	Phe	Ser
225					230					235					240
Arg	Asn	Ser	Ala	Leu	Val	Ile	His	Lys	Ala	He	His	lle	Gly	Glu	Lys
				245					250					255	
Arg	Tyr	Lys	Cys	Asn	Glu	Cys	Gly	Lys	Thr	Phe	Ser	Arg	lle	Ser	Ala
			260					265					270		
Leu	Val	He	llis	Thr	Ala	lle	His	Thr	Gly	Glu	Lys	Pro	Tyr	Lys	Cys
		275					280					285			
Asn	G1u	Cys	Gly	Lys	Gly	Phe	Asn	Arg	Lys	Thr	His	Leu	Ala	Cys	His
	290					295					300				
His	Arg	Leu	His	Thr	Gly	Glu	Lys	Pro	Tyr	Lys	Cys	Asn	Glu	Cys	Gly
305					310					315					320
Lys	Val	Phe	Asn	Arg	Lys	Thr	His	Leu	Ala	His	His	His	Arg	Leu	His
				325					330					335	
Thr	Gly	Asp	Lys	Pro	Tyr	Lys	Cys	Asn	Glu	Cys	Gly	Lys	Val	Phe	Asn
			340					345					350		
Gln	Lys	Ala	His	Leu	Ala	Arg	His	His	Arg	Leu	His	Thr	Gly	Glu	Lys
		355					360					365			
Pro	Tyr	Lys	Cys	Asn	Glu	Cys	Gly	Lys	Val	Phe	Asn	Gln	Lys	Ala	Asn
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Leu Ala Arg His His Arg Leu His Thr Gly Glu Lys Pro Tyr Lys Phe
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Asn Glu Cys Gly Lys Ala Phe Asn
405

<210> 4845

<211> 596

<212> PRT

<213> Homo sapiens

<400> 468

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20 25 30

Gly Leu Ala Arg Asn Thr Phe Leu Lys Ala Cys Ser Glu Ser Ser Ser 35 40 45

Ser Ser Asn Ile Ser Thr Met Leu Val Thr His Asp Tyr Thr Ala Val 50 55 60

Lys Glu Asp Glu Ile Asn Val Tyr Gln Gly Glu Val Val Gln Ile Leu 65 70 75 80

Ala Ser Asn Gln Gln Asn Met Phe Leu Val Phe Arg Ala Ala Thr Asp 85 90 95

Gln Cys Pro Ala Ala Glu Gly Trp Ile Pro Gly Phe Val Leu Gly His 100 105 110

Thr Ser Ala Val Ile Val Glu Asn Pro Asp Gly Thr Leu Lys Lys Ser 115 120 125

Thr Ser Trp His Thr Ala Leu Arg Leu Arg Lys Lys Ser Glu Lys Lys 130 135 140

Asp Lys Asp Gly Lys Arg Glu Gly Lys Leu Glu Asn Gly Tyr Arg Lys 145 150 155 160

Ser Arg Glu Gly Leu Ser Asn Lys Val Ser Val Lys Leu Leu Asn Pro 165 170 175

Asn Tyr Ile Tyr Asp Val Pro Pro Glu Phe Val Ile Pro Leu Ser Glu 180 185 190

Val	Thr	Cys	Glu	Thr	Gly	Glu	Thr	Val	Val	Leu	Arg	Cys	Arg	Val	Cys
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Gly	Arg	Pro	Lys	Ala	Ser	He	Thr	Trp	Lys	Gly	Pro	Glu	His	Asn	Thr
	210					215					220				
Leu	Asn	Asn	Asp	Gly	His	Tyr	Ser	Пе	Ser	Tyr	Ser	Asp	Leu	Gly	Glu
225					230					235					240
Ala	Thr	Leu	Lys	He	Val	Gly	Val	Thr	Thr	Glu	Asp	Asp	Gly	Пе	Tyr
				245					250					255	
Thr	Cys	Ile	Ala	Val	Asn	Asp	Met	Gly	Ser	Ala	Ser	Ser	Ser	Ala	Ser
			260					265					270		
Leu	Arg	Val	Leu	Gly	Pro	Gly	Met	Asp	Gly	He	Met	Val	Thr	Trp	Lys
		275					280					285			
Asp	Asn	Phe	Asp	Ser	Phe	Tyr	Ser	G] u	Val	Ala	Glu	Leu	Gly	Arg	Gly
	290					295					300				
Arg	Phe	Ser	Val	Val	Lys	Lys	Cys	Asp	Gln	Lys	Gly	Thr	Lys	Arg	Ala
305					310					315					320
Val	Ala	Thr	Lys	Phe	Va]	Asn	Lys	Lys	Leu	Met	Lys	Arg	Asp	Gln	Val
				325					330					335	
Thr	His	Glu	Leu	Gly	He	Leu	Gln	Ser	Leu	Gln	His	Pro	Leu	Leu	Val
			340					345					350		
Gly	Leu	Leu	Asp	Thr	Phe	Glu	Thr	Pro	Thr	Ser	Tyr	He	Leu	Val	Leu
		355					360					365			
Glu	Met	Ala	Asp	Gln	Gly	Arg	Leu	Leu	Asp	Cys	Val	Val	Arg	Trp	Gly
	370					375					380				
Ser	Leu	Thr	Glu	Gly	Lys	He	Arg	Ala	His	Leu	Gly	Glu	Val	Leu	Glu
385					390					395					400
Ala	Val	Arg	Tyr	Leu	His	Asn	Cys	Arg	11e	Ala	His	Leu	Asp	Leu	Lys
				405					410					415	
Pro	Glu	Asn	lle	Leu	Val	Asp	Glu	Ser	Leu	Ala	Lys	Pro	Thr	He	Lys
			420					425					430		
Leu	Ala	Asp	Phe	Gly	Asp	Ala	Va]	Gln	Leu	Asn	Thr	Thr	Tyr	Tyr	lle
		435					440					445			
His	Gln	Leu	Leu	Gly	Asn		Glu	Phe	Ala	Ala	Pro	Glu	lle	He	Leu
	450					455					460				
Gly	Asn	Pro	Val	Ser	Leu	Thr	Ser	Asp	Thr	Trp	Ser	Val	G] y	Val	Leu

Thr Tyr Val Leu Leu Ser Gly Val Ser Pro Phe Leu Asp Asp Ser Val Glu Glu Thr Cys Leu Asn Ile Cys Arg Leu Asp Phe Ser Phe Pro Asp Asp Tyr Phe Lys Gly Val Ser Gln Lys Ala Lys Glu Phe Val Cys Phe Leu Leu Gln Glu Asp Pro Ala Lys Arg Pro Ser Ala Ala Leu Ala Leu Gln Glu Gln Trp Leu Gln Ala Gly Asn Gly Arg Ser Thr Gly Val Leu Asp Thr Ser Arg Leu Thr Ser Phe lle Glu Arg Arg Lys His Gln Asn Asp Val Arg Pro IIe Arg Ser IIe Lys Asn Phe Leu Gln Ser Arg Leu Leu Pro Arg Val 

<210> 4846

<211> 569

<212> PRT

<213> Homo sapiens

<400> 469

Met Pro Ser Ser Leu Phe Ala Asp Leu Glu Arg Asn Gly Ser Gly Gly Gly Gly Gly Gly Ser Ser Gly Gly Gly Glu Thr Leu Asp Asp Gln Arg Ala Leu Gln Leu Ala Leu Asp Gln Leu Ser Leu Leu Gly Leu Asp Ser Asp Glu Gly Ala Ser Leu Tyr Asp Ser Glu Pro Arg Lys Lys Ser Val Asn Met Thr Glu Cys Val Pro Val Pro Ser Ser Glu His Val Ala Glu lle Val Gly Arg Gln Gly Cys Lys lle Lys Ala Leu Arg Ala Lys Thr

				85					90					95	
Asn	Thr	Tyr	lle	Lys	Thr	Pro	Val	Arg	Gly	Glu	Glu	Pro	Val	Phe	Val
			100					105					110		
Val	Thr	Gly	Arg	Lys	Glu	Asp	Val	Ala	Met	Ala	Arg	Arg	Glu	11e	He
		115					120					125			
Ser	Ala	Ala	Glu	His	Phe	Ser	Met	He	Arg	Ala	Ser	Arg	Asn	Lys	Asn
	130					135					140				
Thr	Ala	Leu	Asn	Gly	Ala	Val	Pro	G1 y	Pro	Pro	Asn	Leu	Pro	Gly	Gln
145					150					155					160
Thr	Thr	He	Gln	Val	Arg	Val	Pro	Tyr	Arg	Val	Val	Gly	Leu	Val	Val
				165					170					175	
Gly	Pro	Lys	Gly	Ala	Thr	He	Lys	Arg	He	Gln	Gln	Gln	Thr	His	Thr
			180					185					190		
Tyr	He	Val	Thr	Pro	Ser	Arg	Asp	Lys	Glu	Pro	Val		Glu	Val	Thr
		195					200					205			
Gly		Pro	Glu	Asn	Val	Asp	Arg	Ala	Arg	Glu		He	Glu	Ala	His
	210					215				_	220				
	Ala	Leu	Arg	Thr		Gly	lle	He	Glu		Thr	Asp	Glu	Asn	
225					230			0.1	D.	235				0.7	240
Phe	His	Ala	Asn		Thr	Asp	Val	GIy		Asp	Leu	His	His		Ser
0.3	0.1	0	0.1	245 D	6.1	C		т	250		D	The	D	255	11.
Gly	Gly	Ser		Pro	GTy	Ser	Leu		Ser	Lys	Pro	inr		Ser	116
ть	D	ть	260 Dec	C1	Λ	Lua	Dwo	265	Con	Con	Tur	Ara	270	Aen	Sor
inr	PTO	275	110	G1 y	Alg	Lys	280	rne	261	261	rýı	285	изп	nsh	JC1
Sor	Sor		Lou	Clv	Sor	Ala		Thr	Acn	Sor	Twr		Glv	G1v	G1 v
361	290		Leu	Oly	261		361		пор	261	300		Oly	Ory	Oly
Thr			Ser	Ala	Ala	Ala			Arg	Leu			Tyr	Ser	Pro
305	561	561	561	.110	310	711.0		0111	6	315					320
	Ser	Pro	Ala	Leu		Phe	Ala	His	Asn		Asn	Asn	Asn	Asn	
				325					330			•		335	
Glv	Asn	Gly	Tyr			Thr	Ala	Gly	Gly	Glu	Ala	Ser	Val	Pro	Ser
ı			340					345					350		
Pro	Asp	Gly	Cys	Pro	Glu	Leu	Gln	Pro	Thr	Phe	Asp	Pro	Ala	Pro	Ala
		355					360					365			
Pro	Pro	Pro	Glv	Ala	Pro	Leu	Ha	Trn	Ala	Gln	Phe	61n	Arø	Ser	Pro

Gly Gly Gly Pro Ala Ala Pro Val Ser Ser Ser Cys Ser Ser Ala Ser Ser Ser Ala Ser Ser Ser Ser Val Val Phe Pro Gly Gly Ala Ser Ala Pro Ser Asn Ala Asn Leu Gly Leu Leu Val His Arg Arg Leu His Pro Gly Thr Ser Cys Pro Arg Leu Ser Pro Pro Leu His Met Ala Pro Gly Ala Gly Glu His His Leu Ala Arg Arg Val Arg Ser Asp Pro Gly Gly Gly Leu Ala Tyr Ala Ala Tyr Ala Asn Gly Leu Gly Ala Gln Leu Pro Gly Leu Gln Pro Ser Asp Thr Ser Gly Ser Ser Ser Lys Gly Ser Arg Asp Cys Ser Val Cys Phe Glu Ser Glu Val Ile Ala Ala Leu Val Pro Cys Gly His Asn Leu Phe Cys Met Glu Cys Ala Asn Arg Ile Cys Glu Lys Ser Glu Pro Glu Cys Pro Val Cys His Thr Ala Val Thr Gln Ala Ile Arg lle Phe Ser 

<210> 4847

<211> 302

<212> PRT

<213> Homo sapiens

<400> 470

Met Ala Leu Leu Ile Thr Pro Ala Gly Val Ala Thr Val Asn Arg His

1 5 10 15

Ser Thr Ile Pro Ser Asp Thr His Thr Ser Arg Glu Lys Pro Arg Phe

			20					25					30		
His	Lys	Pro	Cys	Arg	Asn	Asp	Leu	Glu	Ser	Leu	Leu	Ser	Glu	Gly	Arg
		35					40				,	45			
Leu	Asp	Thr	Ser	Val	Gln	Thr	Pro	Cys	Pro	Gln	His	Pro	His	Thr	Gln
	50					55					60				
Leu	Ser	Cys	Glu	Pro	Gln	Pro	Leu	Glu	His	Ser	Ser	Cys	Leu	Ser	Thr
65					70					75					80
Cys	Leu	Ala	Gly	Cys	Phe	Leu	Pro	Val	Pro	Ser	Ser	Pro	His	Thr	His
				85					90					95	
Pro	Leu	Leu	Pro	Gly	Ser	Arg	Trp	Leu	Pro	Pro	Pro	Leu	Ala	Leu	Leu
			100					105					110		
Met	Gly	Thr	Leu	Ser	Pro	Gly	Leu	Ala	Val	Lys	Pro	Ser	Trp	Val	Pro
		115					120					125			
Arg	Phe	Pro	Leu	Leu	Ala	Arg	Gln	Ser	Pro	Ala	Thr	Ser	Va]	Gly	Met
	130					135					140				
Pro	Leu	Ser	Ala	Ala	Thr	Gln	Pro	Gly	Ser	Va]	Gly	Arg	Leu	His	Phe
145					150					155					160
Pro	Lys	Leu	Arg	Ser	Ser	Ser	Pro	Phe	Ser	Gly	His	Ser	Asp	Glu	Asn
				165					170					175	
Lys	Ala	Thr	Gly	Gln	Gly	Arg	Glu	Asn	Arg	Asp	Gln	Pro	Gln	Arg	Pro
			180					185					190		
Ser	His	Leu	Cys	Glu	Cys	Pro	Glu	Ala	Ala	Lys	Gln	Ser	Ala	Thr	Asn
		195					200					205			
Gly	Val	Ala	Glu	Thr	Asn	Arg	Ser	Val	Phe	Pro	Leu	Gly	Ser	Glu	Ala
	210					215					220				
-	Ser	Leu	Ser	Leu		Arg	Gln	Glu	Ser		Pro	His	Ser	Gly	
225					230					235					240
Ser	Arg	Arg	Glu		Val	Ser	Cys	Ser		Ser	Phe	Trp	Cys		Trp
	_			245					250					255	
Gln	Pro	Leu	Ala	Phe	Leu	Thr	Cys		Cys	Ala	Ala	Pro		Ser	Val
			260		•			265					270		
Pro	Gly		Thr	Arg	Pro	Ser		Arg	Pro	Cys	Cys		Ser	Pro	Pro
	37. 3	275		0.1			280		0.3	15	TT.	285	, ,		
Leu		Arg	Leu	GIn	Ser		Gly	Leu	Gly	Pro		GIn	He		
	290					295					300				

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<211> 449
<212> PRT
<213> Homo sapiens
<400> 471
Met Pro Gly Met Met Glu Lys Gly Pro Glu Leu Leu Gly Lys Asn Arg
 1
                  5
                                     10
Ser Ala Asn Gly Ser Ala Lys Ser Pro Ala Gly Gly Gly Ser Gly
                                 25
Ala Ser Ser Thr Asn Gly Gly Leu His Tyr Ser Glu Pro Glu Ser Gly
                             40
                                                 45
Cys Ser Ser Asp Asp Glu His Asp Val Gly Met Arg Val Gly Ala Glu
     50
                         55
                                             60
Tyr Gln Ala Arg Ile Pro Glu Phe Asp Pro Gly Ala Thr Lys Tyr Thr
                     70
                                         75
Asp Lys Asp Asn Gly Gly Met Leu Val Trp Ser Pro Tyr His Ser Ile
                 85
                                     90
Pro Asp Ala Lys Leu Asp Glu Tyr Ile Ala Ile Ala Lys Glu Lys His
            100
                                105
                                                     110
Gly Tyr Asn Val Glu Gln Ala Leu Gly Met Leu Phe Trp His Lys His
                            120
                                                 125
Asn Ile Glu Lys Ser Leu Ala Asp Leu Pro Asn Phe Thr Pro Phe Pro
    130
                        135
                                             140
Asp Glu Trp Thr Val Glu Asp Lys Val Leu Phe Glu Gln Ala Phe Ser
                    150
                                        155
Phe His Gly Lys Ser Phe His Arg Ile Gln Gln Met Leu Pro Asp Lys
                165
                                    170
                                                         175
Thr lle Ala Ser Leu Val Lys Tyr Tyr Tyr Ser Trp Lys Lys Thr Arg
            180
                                185
Ser Arg Thr Ser Leu Met Asp Arg Gln Ala Arg Lys Leu Ala Asn Arg
                            200
                                                 205
His Asn Gln Gly Asp Ser Asp Asp Val Glu Glu Thr His Pro Met
    210
                        215
                                             220
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Asp Gly Asn Asp Ser Asp Tyr Asp Pro Lys Lys Glu Ala Lys Lys Glu

<210> 4848

225					230					235					240
Gly	Asn	Thr	Glu	Gln	Pro	Val	Gln	Thr	Ser	Lys	He	Gly	Leu	Gly	Arg
				245					250					255	
Arg	Glu	Tyr	Gln	Ser	Leu	Gln	His	Arg	His	His	Ser	Gln	Arg	Ser	Lys
			260					265					270		
Cys	Arg	Pro	Pro	Lys	Gly	Met	Tyr	Leu	Thr	Gln	Glu	Asp	Val	Val	Ala
		275					280					285			
Val	Ser	Cys	Ser	Pro	Asn	Ala	Ala	Asn	Thr	He	Leu	Arg	Gln	Leu	Asp
	290					295					300				
Met	Glu	Leu	Ile	Ser	Leu	Lys	Arg	Gln	Val	Gln	Asn	Ala	Lys	Gln	Val
305					310					315					320
Asn	Ser	Ala	Leu	Lys	Gln	Lys	Met	Glu	Gly	Gly	He	Glu	Glu	Phe	Lys
				325					330					335	
Pro	Pro	Glu	Ser	Asn	Gln	Lys	He	Asn	Ala	Arg	Trp	Thr	Thr	Glu	Glu
			340					345					350		
Gln	Leu	Leu	Ala	Val	Gln	Gly	Val	Arg	Lys	Tyr	Gly	Lys	Asp	Phe	Gln
		355					360					365			
Ala	Ile	Ala	Asp	`Val	Ile	Gly	Asn	Lys	Thr	Val	Gly	Gln	Val	Lys	Asn
	370					375					380				
Phe	Phe	Val	Asn	Tyr	Arg	Arg	Arg	Phe	Asn	Leu	Glu	Glu	Val	Leu	Gln
385					390					395					400
Glu	Trp	Glu	Ala	Glu	Gln	Gly	Thr	Gln	Ala	Ser	Asn	Gly	Asp	Ala	Ser
				405					410					415	
Thr	Leu	Gly	Glu	Glu	Thr	Lys	Ser	Ala	Ser	Asn	Val	Pro	Ser	Gly	Lys
			420					425					430		
Ser	Thr	Asp	Glu	Glu	Glu	Glu	Val	Cys	Leu	Cys	Met	Glu	Phe	Glu	Leu
		435					440					445			
Пe															

<210> 4849

<211> 244

<212> PRT

<213> Homo sapiens

<400	)> 47	72													
Met	Thr	Gly	Ser	Asn	Ser	His	Ile	Thr	lle	Leu	Thr	Val	Asn	Ile	Asn
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G1 y	Leu	Asn	Ala	Pro	He	Lys	Gly	His	Arg	Leu	Ala	Asn	Trp	He	Lys
			20					25					30		
Ser	G1n	Asp	Pro	Ser	Val	Cys	Cys	Ile	Gln	Glu	Thr	His	Leu	Met	Arg
		35					40					45			
Lys	Phe	Thr	His	Arg	Phe	Asn	Ile	Lys	Gly	Trp	Arg	Lys	Ile	Tyr	Gln
	50					55					60				
Glu	Asn	Gly	Lys	Gln	Lys	Lys	Ala	Gly	Val	Ala	Ile	Leu	Val	Ser	Asp
65					70					75					80
Lys	Thr	Asp	Phe	Lys	Pro	Thr	Lys	Ile	Lys	Gly	Asp	Lys	Gly	His	Tyr
				85					90					95	
He	Met	Val	Lys	Gly	Ser	Met	Gln	Gln	Glu	Glu	Leu	Thr	He	Leu	Asn
			100					105					110		
Ile	Tyr	Ala	Pro	Asn	Thr	Arg	Ala	Pro	Arg	Phe	Ile	Lys	Gln	Val	Leu
		115					120					125			
Arg	Asp	Leu	Gln	Arg	Asp	Leu	Asp	Ser	His	Thr	Ile	Ile	Met	Gly	Asp
	130					135					140				
Phe	Asn	Thr	Glu	Leu	Ser	11e	Leu	Glu	Arg	Ser	Thr	Arg	Gln	Lys	Val
145					150					155					160
Asn	Lys	Asp	lle	Gln	Asp	Leu	Asn	Ser	Ala	Leu	Gln	Gln	Thr	Asp	Pro
				165					170					175	
He	Asp	He	His	Arg	Asn	Leu	His	Leu	Lys	Ser	Thr	Glu	Tyr	Thr	Leu
			180					185					190		
Phe	Ser	Ala	Pro	His	He	Thr	Tyr	Ser	Lys	Phe	Asp	His	He	Ile	Gly
		195					200					205			
Ser	Lys	Ala	Leu	Leu	Thr	Lys	Cys	Lys	Arg	Thr	Glu	lle	Thr	Thr	Asn
	210					215					220				
Cys	Leu	Leu	Asp	His	Ser	Ala	He	Lys	Phe	G1u	Leu	Arg	He	Lys	Lys
225					230					235					240
Leu	Thr	Gln	Asn												

<211> 695

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<212> PRT
<213> Homo sapiens
<400> 473
Met Val Tyr Pro Tyr Pro Gly Ala Arg Ala Glu Glu Lys Leu Gly Gly
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Thr Arg Asp Pro Thr Tyr Gln Glu Arg Ala Ala Pro Gln Thr Gln Pro
             20
                                 25
                                                      30
Leu Gly Lys Glu Thr Asp Ser Leu Ser Ala Gly Phe Val Val Met
Gly Val Asp Leu Ser Arg Cys Gly Pro Asp His Thr Ala Ser Arg Cys
                         55
                                             60
Pro Trp Asp Pro Gly Leu Leu Leu Arg Phe Leu Ala Ala Met Ala Ala
                                         75
 65
                     70
Val Gly Ala Leu Glu Pro Leu Leu Pro Gly Pro Leu Leu Ala Val His
                                     90
                 85
Pro His Ala Gly Thr Ala Pro Pro Ala Asn Gln Leu Pro Trp Pro Val
            100
                                105
                                                     110
Leu Cys Ser Pro Val Ala Gly Val Ile Leu Leu Ala Leu Gly Ala Leu
                            120
                                                125
Leu Val Leu Gln Leu 11e Arg Arg Arg Arg Glu His Gly Ala Leu
                        135
Trp Leu Pro Pro Gly Phe Thr Arg Arg Pro Arg Thr Gln Ser Ala Pro
145
                    150
                                        155
His Arg Arg Arg Pro Pro Leu Gly Glu Asp Ser Ile Gly Leu Lys Ala
                                    170
                165
Leu Lys Pro Lys Ala Glu Val Asp Glu Asp Gly Val Val Met Cys Ser
            180
                                                     190
                                185
Gly Pro Glu Glu Glu Glu Glu Glu Glu Glu Thr Gly Pro Pro Ser Thr
                            200
Cys Gln Leu Trp Ser Leu Ser Gly Gly Cys Gly Ala Leu Pro Gln Ala
                        215
                                            220
Ala Met Leu Thr Pro Pro Gln Glu Ser Glu Met Glu Ala Pro Asp Leu
225
                    230
                                         235
                                                             240
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Asp Thr Arg Gly Pro Asp Gly Val Thr Pro Leu Met Ser Ala Val Cys

				245					250					255	
Cys	Gly	Glu	Val	Gln	Ser	Gly	Thr	Phe	Gln	G1 y	Ala	Trp	Leu	G1 y	Cys
			260					265					270		
Pro	Glu	Pro	Trp	Glu	Pro	Leu	Leu	Asp	Gly	Gly	Ala	Cys	Pro	Gln	Ala
		275					280					285			
His	Thr	Val	Gly	Thr	Gly	Glu	Thr	Pro	Leu	His	Leu	Ala	Ala	Arg	Phe
	290					295					300				
Ser	Arg	Pro	Thr	Ala	Ala	Arg	Arg	Leu	Leu	Glu	Ala	Gly	Ala	Asn	Pro
305					310					315					320
Asn	Gln	Pro	Asp	Arg	Ala	Gly	Arg	Thr	Pro	Leu	His	Ala	Ala	Val	Ala
				325					330					335	
Ala	Asp	Ala	Arg	Glu	Val	Cys	G1n	Leu	Leu	Leu	Arg	Ser	Arg	Gln	Thr
			340					345					350		
Ala	Val	Asp	Ala	Arg	Thr	Glu	Asp	Gly	Thr	Thr	Pro	Leu	Met	Leu	Ala
		355					360					365			
Ala	Arg	Leu	Ala	Val	Glu	Asp	Leu	Val	G] u	Glu	Leu	He	Ala	Ala	Gln
	370					375					380				
Ala	Asp	Val	Gly	Ala	Arg	Asp	Lys	Trp	Gly	Lys	Thr	Ala	Leu	His	Trp
385	•				390					395					400
Ala	Ala	Ala	Val	Asn	Asn	Ala	Arg	Ala	Ala	Arg	Ser	Leu	Leu	Gln	Ala
				405					410					415	
Gly	Ala	Asp	Lys	Asp	Ala	Gln	Asp	Asn	Arg	Glu	Gln	Thr	Pro	Leu	Phe
			420					425					430		
Leu	Ala	Ala	Arg	Glu	Gly	Ala	Val	Glu	Val	Ala	Gln	Leu	Leu	Leu	Gly
		435					440					445			
Leu	Gly	Ala	Ala	Arg	Glu	Leu	Arg	Asp	Gln	Ala	Gly	Leu	Ala	Pro	Ala
	450					455					460				
Asp	Va]	Ala	His	Gln	Arg	Asn	His	Trp	Asp	Leu	Leu	Thr	Leu	Leu	Glu
465					470					475					480
G1 y	Ala	Gly	Pro	Pro	Glu	Ala	Arg	His	Lys	Ala	Thr	Pro	Gly	Arg	Glu
				485					490					495	
Ala	Gly	Pro	Phe	Pro	Arg	Ala	Arg	Thr	Val	Ser	Val	Ser	Val	Pro	Pro
			500					505					510		
His	Gly	G1 y	Gly	Ala	Leu	Pro	Arg	Cys	Arg	Thr	Leu	Ser	Ala	Gly	Ala
		515					520					525			
0.1	D	A 20.00	C1	C1	C1	A 1 a	Cua	1	Cl <sub>p</sub>	۸1.	Arror	The	Trn	San	Val

	530					535					540				
Asp	Leu	Ala	Ala	Arg	Gly	Gly	Gly	Ala	Tyr	Ser	His	Cys	Arg	Ser	Leu
545					550					555					560
Ser	Gly	Val	Gly	Ala	Gly	Gly	Gly	Pro	Thr	Pro	Arg	G1 y	Arg	Arg	Phe
				565					570					575	
Ser	Ala	Gly	Met	Arg	Gly	Pro	Arg	Pro	Asn	Pro	Ala	lle	Met	Arg	Gly
			580					585					590		
Arg	Tyr	Gly	Val	Ala	Ala	Gly	Arg	Gly	Gly	Arg	Val	Ser	Thr	Asp	Asp
		595					600					605			
Trp	Pro	Cys	Asp	Trp	Val	Ala	Leu	Gly	Ala	Cys	Gly	Ser	Ala	Ser	Asn
	610					615					620				
lle	Pro	He	Pro	Pro	Pro	Cys	Leu	Thr	Pro	Ser	Pro	Glu	Arg	Gly	Ser
625					630					635					640
Pro	Gln	Leu	Asp	Cys	Gly	Pro	Pro	Ala	Leu	Gln	Glu	Met	Pro	He	Asn
				645					650					655	
Gln	Gly	Gly	Glu	G1 y	Lys	Lys	Ile	Glu	Glu	Tyr	Met	Val	Gly	Arg	Asn
			660					665					670		
Ser	Lys	Asn	Asp	Tyr	Pro	Leu	Lys	G1 y	Arg	Leu	Glu	Gly	Leu	Pro	Gly
		675					680					685			
Phe	Lys	Met	Asp	Pro	Pro	Lys									
	690					695									

<210> 4851

<211> 211

<212> PRT

<213> Homo sapiens

<400> 474

Met Ser Ser Val Val Gly Leu Phe Leu Cys Phe Thr Ser Cys Ser Ser 1  $\phantom{0}$   $\phantom{0}$ 

60 50 55 Leu Met Lys Leu Ala Gly Pro Leu Thr Phe Asn Glu Met Ile Gln Pro 70 75 65 80 Val Cys Leu Pro Asn Ser Glu Glu Asn Phe Pro Asp Gly Lys Val Cys 90 85 Trp Thr Ser Gly Trp Gly Ala Thr Glu Asp Gly Gly Asp Ala Ser Pro 105 Val Leu Asn His Ala Ala Val Pro Leu Ile Ser Asn Lys Ile Cys Asn 115 120 125 His Arg Asp Val Tyr Gly Gly Ile Ile Ser Pro Ser Met Leu Cys Ala 135 Gly Tyr Leu Thr Gly Gly Val Asp Ser Cys Gln Gly Asp Ser Gly Gly 150 155 Pro Leu Val Cys Gln Glu Arg Arg Leu Trp Lys Leu Val Gly Ala Thr 165 170 Ser Phe Gly Ile Gly Cys Ala Glu Val Asn Lys Pro Gly Val Tyr Thr 180 185 Arg Val Thr Ser Phe Leu Asp Trp Ile His Glu Gln Met Glu Arg Asp 195 200 205 Leu Lys Thr 210 <210> 4852 <211> 193 <212> PRT <213> Homo sapiens <400> 475

1 5 10 15

Ala Cys Lys Thr Pro 1le Arg Asn Arg Ala Phe Tyr Met Glu Glu Gly
20 25 30

Val Pro Tyr Cys Glu Arg Gly Thr His Trp Pro Val Arg Val Arg Arg
35 40 45

Asp Gly Ala Trp Gly Arg His Glu Ser Arg Ser Ser Phe Ser Leu Pro

Met His Ala Leu Lys Met Thr Trp His Val His Cys Phe Thr Cys Ala

Pro Phe Ser Asp Tyr Glu Lys Met Phe Gly Thr Lys Cys His Gly Cys Asp Phe Lys Ile Asp Ala Gly Asp Arg Phe Leu Glu Ala Leu Gly Phe Ser Trp His Asp Thr Cys Phe Val Cys Ala Val Arg Ala Pro Pro Leu Glu Leu Ser Pro Lys Pro Thr Gly Pro Leu Phe Ile Pro Gln Glu Met Gln Glu Lys Leu Gly Arg Gly Leu Ser Cys Cys Pro Gln Pro His Val Thr Glv Pro Leu Leu Ser Leu Asp Met Ser Asp Gln Pro Gly Arg Lys Asp Leu Leu Eln Glu Gly Gln Ala Ser Leu Gln Glu Pro Cys Leu Leu Ser Cys Val Ser Pro Phe Cys Pro Gln Leu Pro Arg Trp Pro Leu Ala <210> 4853 <211> 134 <212> PRT <213> Homo sapiens <400> 476 Met Cys Gln Val Tyr Phe Val Lys Leu Leu Ile Leu Gly Val Leu Leu Cys Phe Leu Leu Val Arg Gln Asp Leu Thr Leu Ser Pro Arg Leu Glu Cys Ser Gly Ala Ile Trp Ala His Cys Asn Pro Arg Leu Leu Gly Ile

Ser Asn Leu Pro Ala Leu Ala Ser Gln Val Ala Glu Thr Thr Gly Met

 Ser His His His Thr Gln Leu Thr Thr Cys Asn Phe Phe Asp Arg Asp Arg

 65
 70
 75
 80

 Ser Cys His Val Thr Gln Thr Asp Leu Lys Thr Pro Gly Leu Arg Arg
 95

 Pro Thr His Leu Gly Leu Pro Lys Cys Trp Asp Tyr Arg Cys Glu Pro 100
 105
 110

 Leu His Leu Thr Gln Phe Val 11e Leu Asn Leu Phe Leu Leu Ser Cys 115
 120
 125

 Phe Ser Phe Phe Phe Phe Leu 130

<210> 4854

<211> 568

<212> PRT

<213> Homo sapiens

<400> 477

Met Gly Ser Glu Val Val Ala Gly Asn Ser Val Gly Pro Thr Met Gly Ala Ala Ser Ser Gly Pro Leu Pro Pro Pro Pro Pro Pro Leu Pro Pro Ser Ser Asp Thr Pro Glu Thr Val Gln Asn Gly Pro Val Thr Pro Pro Met Pro Pro Pro Pro Leu Pro Gly Pro Ala Ala Glu Thr Val Pro Ala Pro Pro Leu Ala Pro Pro Leu Pro Ser Ala Pro Pro Leu Pro Gly Thr Ser Ser Pro Thr Val Val Phe Asn Ser Gly Leu Ala Ala Val Lys Ile Lys Lys Pro Ile Lys Thr Lys Phe Arg Met Pro Val Phe Asn Trp Val Ala Leu Lys Pro Asn Gln lle Asn Gly Thr Val Phe Asn Glu lle Asp Asp Glu Arg 11e Leu Glu Asp Leu Asn Val Asp Glu Phe Glu Glu

lle	Phe	Lys	Thr	Lys	Ala	G1n	Gly	Pro	Ala	He	Asp	Leu	Ser	Ser	Ser
145					150					155					160
Lys	Gln	Lys	He	Pro	Gln	Lys	Gly	Ser	Asn	Lys	Val	Thr	Leu	Leu	Glu
				165					170					175	
Ala	Asn	Arg	Λla	Lys	Asn	Leu	Ala	Пе	Thr	Leu	Arg	Lys	Ala	Gly	Lys
			180					185					190		
Thr	Ala	Asp	Glu	lle	Cys	Lys	Ala	He	His	Val	Phe	Asp	Leu	Lys	Thr
		195					200					205			
Leu		Val	Asp	Phe	Val		Cys	Leu	Met	Arg		Leu	Pro	Thr	Glu
	210					215					220				
	Glu	Val	Lys	Val	Leu	Arg	Leu	Tyr	Glu		Glu	Arg	Lys	Pro	
225					230					235					240
Glu	Asn	Leu	Ser	-	Glu	Asp	Arg	Phe		Met	GIn	Phe	Ser		He
				245			mı	2.1	250		151		0.1	255	151
Glu	Arg	Leu		GIn	Lys	Met	Thr		Met	Ala	Phe	He		Asn	Phe
A 1 .	C1	C	260	C1	М. 4	1	T1	265	C1	1	112 -	41.	270	11.	41-
Ala	Glu		11e	GIn	Met	Leu		Pro	GIn	Leu	HIS		11e	116	Ala
<b>A1</b> 0	Con	275	San	110	Luc	Son	280 Sar	Cln	Luc	Lou	Lva	285	Ha	Lou	Clas
ніа	290	vai	Sei	116	Lys	295	261	GIH	Lys	Leu	300	Lys	116	Leu	oru
ماا		الم ا	Ala	lau	Gly		Tyr	Mot	Aen	Sor		lve	Aro	Glv	Ala
305	110	Leu	MIG	Leu	310	изп	1 9 1	MCt	ASH	315	501	Lys	мв	O1 y	320
	Tvr	Glv	Phe	Lvs	Leu	Gln	Ser	Leu	Asn		Leu	Leu	Asp	Thr	
, ,	.,.	01,	7 110	325	Вод	0111	001	1300	330	130.0	1500	,,,,,	Пор	335	
Ser	Thr	Asp	Arg		Gln	Thr	Leu	Leu		Tyr	He	Ser	Asn		Val
		·	340	•				345		·			350		
Lys	Glu	Lys	Tyr	His	Gln	Val	Ser	Leu	Phe	Tyr	Asn	Glu	Leu	His	Tyr
		355					360					365			
Val	Glu	Lys	Ala	Ala	Ala	Val	Ser	Leu	Glu	Asn	Val	Leu	Leu	Asp	Val
	370					375					380				
Lys	Glu	Leu	Gln	Arg	Gly	Met	Asp	Leu	Thr	Lys	Arg	Glu	Tyr	Thr	Met
385					390					395					400
His	Asp	His	Asn	Thr	Leu	Leu	Lys	Glu	Phe	Пе	Leu	Asn	Asn	Glu	Gly
				405					410					415	
Lys	Leu	Lys	Lys	Leu	Gln	Asp	Asp	Ala	Lys	He	Ala	Gln	Asp	Ala	Phe
			420					425					430		

Asp Asp Val Val Lys Tyr Phe Gly Glu Asn Pro Lys Thr Thr Pro Pro 435 440 Ser Val Phe Phe Pro Val Phe Val Arg Phe Val Lys Ala Tyr Lys Gln 455 460 450 Ala Glu Glu Glu Asn Glu Leu Arg Lys Lys Gln Glu Gln Ala Leu Met 475 470 Glu Lys Leu Glu Gln Glu Ala Leu Met Glu Gln Gln Asp Pro Lys 485 490 Ser Pro Ser His Lys Ser Lys Arg Gln Gln Gln Glu Leu Ile Ala Glu 500 505 Leu Arg Arg Arg Gln Val Lys Asp Asn Arg His Val Tyr Glu Gly Lys 520 Asp Gly Ala Ile Glu Asp Ile Ile Thr Ala Leu Lys Lys Asn Asn Ile 530 535 540 Thr Lys Phe Pro Asn Val His Ser Arg Val Arg Ile Ser Ser Ser Thr 550 555 560 Pro Val Val Glu Asp Thr Gln Ser 565

<210> 4855

<211> 415

<212> PRT

<213> Homo sapiens

<400> 478

Met Thr Leu Ala Ala Ser Ser Gln Arg Ser Gln Ile Ile Arg Ser Lys

1 5 10 15

Phe Arg Ser Val Leu Gln Leu Arg Ile His Arg Arg Asn Gln Glu Gln
20 25 30

Ile Ser Asp Pro Asp Pro Trp Ile Ser Ala Ser Asp Pro Pro Leu Ala 35 40 45

Pro Ala Leu Pro Ser Gly Thr Ala Pro Phe Leu Phe Ser Pro Gly Val
50 55 60

Leu Leu Pro Glu Pro Glu Tyr Cys Pro Pro Trp Arg Ser Pro Lys Lys
65 70 75 80

Glu	Ser	Pro	Lys		Ser	Gln	Arg	Trp	_	Glu	Ser	Lys	Pro	_	Gly
				85				_	90		_			95	
Asn	Leu	Thr		His	Gln	Tyr	Met		Pro	Glu	Pro	Arg	Głn	Gly	Ser
			100					105					110		
Arg	Ala	Asp	Pro	Gln	Ala	Glu	Gly	Ser	Ala	Leu	Gly	Pro	Pro	Gly	Pro
		115					120					125			
Ser	Leu	Trp	Glu	Gly	Thr	Asp	Ser	Gln	Gln	Pro	His	Pro	Arg	Met	Lys
	130					135					140				
Pro	Ser	Pro	Leu	Thr	Pro	Cys	Pro	Pro	Gly	Val	Pro	Ser	Pro	Ser	Pro
145					150					155					160
Pro	Pro	His	Lys	Leu	Glu	Leu	Gln	Thr	Leu	Lys	Leu	Glu	Glu	Leu	Thr
				165					170					175	
Val	Ser	Glu	Leu	Arg	Gln	Gln	Leu	Arg	Leu	Arg	Gly	Leu	Pro	Val	Ser
			180					185					190		
Gly	Thr	Lys	Ser	Met	Leu	Leu	Glu	Arg	Met	Arg	Gly	Gly	Ala	Pro	Pro
		195					200					205			
Arg	Glu	Arg	Pro	Lys	Pro	Arg	Arg	Glu	Asp	Ser	Pro	Ala	Gly	Ala	Pro
	210					215					220				
Trp	Pro	Arg	Leu	Lys	Pro	Lys	Ala	Leu	Ala	Ala	Ala	Arg	Arg	Gln	G1 y
225					230					235					240
Ser	Val	Lys	Pro	Ser	Ala	Ala	Ser	His	Arg	Pro	Pro	Leu	Pro	Arg	Ala
				245					250					255	
Ala	Asp	Thr	Pro	Gly	Thr	Ala	Pro	Ala	Pro	Thr	Pro	Thr	Pro	Ala	Pro
			260					265					270		
Ala	Ala	Ala	Pro	Ala	Leu	Thr	Pro	Ser	Ser	Gly	Pro	Gly	Ser	Ala	Ala
		275					280					285			
Leu	Thr	Leu	Glu	Glu	Glu	Leu	Gln	Glu	Ala	lle	Arg	Arg	Ala	Gln	Leu
	290					295					300				
Leu	Pro	Asn	Arg	Gly	He	Asp	Asp	Пe	Leu	Glu	Asp	Gln	Val	Glu	Pro
305					310	-				315					320
	Asp	Pro	Leu	Pro	Pro	Ile	Pro	Leu	Asp		Pro	Glv	Ser	Phe	Asp
-	-			325					330					335	
Val	Leu	Ser	Pro	Ser	Pro	Asp	Ser	Glu	G1 v	Leu	Ser	Ser	Val	Phe	Ser
			340			•		345	•				350		
Ser	Ser	len		Ser	Pro	Thr	Asn		Ser	Ser	Pro	Ser		Arø	Asn

Pro Thr Asp Ser Leu Asp Trp Leu Glu Ala Leu Ser Gly Gly Pro Pro Leu Gly Ser Gly Pro Pro Pro Pro Ser Ile Phe Ser Ala Asp Leu Ser Asp Ser Ser Ser Ser Arg Leu Trp Asp Leu Leu Glu Asp Pro Trp <210> 4856 <211> 197 <212> PRT <213> Homo sapiens <400> 479 Met Ser Cys Tyr Pro Thr Phe Asp Trp Ala Thr Trp Ala Glu Gly Glu Lys Gly Val Trp Lys Ser Pro Pro Ser Ile Gln Thr Gly Asp Gln Ile Gly Val Arg Glu Glu Leu Leu Asn Ala Leu His Ser Ser Leu Ala Arg Pro Ala Ile Lys Lys His Gln His Pro Lys Gly Lys Lys Arg Arg

Ser Arg Glu Lys His Gln Glu Ser Thr Thr Asp Pro Gly Ser Pro Lys Lys Cys Arg Ala Arg Phe Gly Leu Asn Gln Gln Thr Asp Trp Cys Gly Pro Cys Arg Arg Lys Lys Cys Ile Arg Tyr Leu Pro Gly Glu Gly Arg Cys Pro Ser Pro Val Pro Ser Asp Asp Ser Ala Leu Gly Cys Pro Gly Ser Pro Ala Pro Gln Asp Ser Pro Ser Tyr His Leu Leu Pro Arg Phe Pro Thr Glu Leu Leu Thr Ser Pro Ala Glu Pro Ala Pro Thr Ser Pro Gly Leu Ser Thr Ala Leu Ser Leu Pro Thr Pro Gly Pro Pro Gln

170 165 · 175 Ala Pro Arg Ser Thr Leu Gln Ser Thr Gln Val Gln Gln Gln Glu Ser 180 190 185 Gln Arg Gln Val Ala 195 <210> 4857 <211> 209 <212> PRT <213> Homo sapiens <400> 480 Met Lys Lys Leu Thr Pro Lys Gln Lys Phe Ser Glu Asp Leu Glu Ser 5 10 Tyr Lys Ile Ser Val Val Met Gln Glu Ser Ala Glu Lys Leu Ser Glu 25 20 Lys Leu His Lys Cys Lys Glu Phe Val Asp Ser Cys Arg Leu Thr Phe 45 35 Pro Thr Ser Gly Asp Glu Tyr Ser Arg Gly Phe Leu Gln Asn Leu Asn Leu Ile Gln Asp Gln Asn Ala Gln Thr Arg Trp Lys Gln Gly Arg Tyr 70 75 Asp Glu Asp Gly Lys Pro Phe Asn Gln Arg Ser Leu Leu Leu Gly His 85 90 Glu Arg Ile Leu Thr Arg Ala Lys Ser Tyr Glu Cys Ser Glu Cys Gly 100 105 Lys Val Ile Arg Arg Lys Ala Trp Phe Asp Gln His Gln Arg Ile His 115 120 125 Phe Leu Glu Asn Pro Phe Glu Cys Lys Val Cys Gly Gln Ala Phe Arg 135 Gln Arg Ser Ala Leu Thr Val His Lys Gln Cys His Leu Gln Asn Lys 150 155 160 Pro Tyr Arg Cys His Asp Cys Gly Lys Cys Phe Arg Gln Leu Ala Phe 165 170 175

Leu Leu Asn Ile Arg Gly Phe Thr Pro Lys Lys Asn Leu Ile Asn Val

Ala Asn Val Lys Lys Arg Leu Val Arg Ile Gln Pro Leu Phe Asp Ile Arg <210> 4858 <211> 259 <212> PRT <213> Homo sapiens <400> 481 Met Glu Cys His Leu Lys Thr His Tyr Lys Met Glu Tyr Lys Cys Arg lle Cys Gln Thr Val Lys Ala Asn Gln Leu Glu Leu Glu Thr Arg Thr Arg Glu His Arg Leu Gly Asn His Tyr Lys Cys Asp Gln Cys Gly Tyr Leu Ser Lys Thr Ala Asn Lys Leu Ile Glu His Val Arg Val His Thr Gly Glu Arg Pro Phe His Cys Asp Gln Cys Ser Tyr Ser Cys Lys Arg Lys Asp Asn Leu Asn Leu His Lys Lys Leu Lys His Ala Pro Arg Gln Thr Phe Ser Cys Glu Glu Cys Leu Phe Lys Thr Thr His Pro Phe Val Phe Ser Arg His Val Lys Lys His Gln Ser Gly Asp Cys Pro Glu Glu Asp Lys Lys Gly Leu Cys Pro Ala Pro Lys Glu Pro Ala Gly Pro Gly Ala Pro Leu Leu Val Val Gly Ser Ser Arg Asn Leu Leu Ser Pro Leu Ser Val Met Ser Ala Ser Gln Ala Leu Gln Thr Val Ala Leu Ser Ala

Ala His Gly Ser Ser Ser Glu Pro Asn Leu Ala Leu Lys Ala Leu Ala Phe Asn Gly Ser Pro Leu Arg Phe Asp Lys Tyr Arg Asn Ser Asp Phe Ala His Leu Ile Pro Leu Thr Met Leu Tyr Pro Lys Asn His Leu Asp Leu Thr Phe His Pro Pro Arg Pro Gln Thr Ala Pro Pro Ser Ile Pro Ser Pro Lys His Pro Phe Leu Ala Tyr Leu Gly Leu Arg Glu Arg Ala 

Glu Thr Val

<210> 4859

<211> 160

<212> PRT

<213> Homo sapiens

<400> 482

Met 11e Ser Ala Tyr Cys Asn Leu His Leu Leu Gly Ser Ser Asn Ser Ser Ala Ser Ala Ser Gln Val Ala Gly 11e Thr Gly Ala Cys Gln His Ala Trp Leu lle Trp Gly Tyr Ser Ser Phe Leu Arg Gln Ser Phe Ala Leu Ser Pro Lys Leu Glu Cys Ser Gly Thr Ile Ser Ala Leu Cys Ser Leu Cys Leu Leu Gly Ser Ser Asp Ser Pro Ser Ser Ala Ser Gln Val Ala Gly Ile Thr Gly Ala Cys Tyr His Ala Gln Leu Ile Phe Val Phe Leu Val Gln Met Arg Phe His His Leu Gly Gln Ala Gly Leu Glu Leu Leu Thr Ser Ser Asp Leu Pro Ala Ser Ala Ser Gln Ser Ala Gly Ile

<210> 4860

<211> 276

<212> PRT

<213> Homo sapiens

<400> 483

Met Asn Val Gln Ser Ser Arg Ser His Ala Ile Phe Thr Ile His Leu

1 5 10 15

Cys Gln Met Arg Met Cys Thr Gln Pro Asp Leu Val Asn Glu Ala Val 20 25 30

Thr Gly Leu Pro Asp Gly Thr Pro Pro Ser Ser Glu Tyr Glu Thr Leu
35 40 45

Thr Ala Lys Phe His Phe Val Asp Leu Ala Gly Ser Glu Arg Leu Lys
50 55 60

Arg Thr Gly Ala Thr Gly Glu Arg Ala Lys Glu Gly Ile Ser Ile Asn
65 70 75 80

Cys Gly Leu Val Gly Thr Trp Trp Val 11e Ser Pro Ser Thr His Thr 85 90 95

Ala Gln Ser Gln Thr Pro Pro Arg Pro Cys Ser Pro Thr Pro Ala Glu 100 105 110

Ser Ser Leu Asp Ile Leu Pro Ile Ser Pro Ser Leu Ser Gly Val Thr 115 120 125

Pro Val Pro Ser Phe Pro Ile Ser Pro Thr Tyr Pro Cys Ala Tyr Lys 130 135 140

Pro Thr Gln Gly Ala Arg Gly Leu Leu Gly Pro Lys Arg Gln Leu Ala 145 150 155 160

Leu Gly Asn Val Ile Ser Ala Leu Gly Asp Gln Ser Lys Lys Val Val
165 170 175

His Val Ser Tyr Arg Asp Ser Lys Leu Thr Arg Leu Leu Gln Asp Ser 180 185 190

```
Leu Gly Gly Asn Ser Gln Thr Ile Met Ile Ala Cys Val Ser Pro Ser
        195
                            200
                                                 205
Asp Arg Asp Phe Met Glu Thr Leu Asn Thr Leu Lys Tyr Ala Asn Arg
    210
                        215
                                             220
Ala Arg Asn Ile Lys Asn Lys Val Val Val Asn Gln Asp Lys Thr Ser
                    230
                                         235
Gln Gln Ile Ser Ala Leu Arg Ala Glu Ile Ala Arg Leu Gln Met Glu
                245
                                     250
                                                         255
Leu Met Glu Tyr Lys Ala Val Ser Met Leu Leu Gly Ile Ala Gln His
            260
                                 265
                                                     270
Ser Pro Trp Ser
        275
<210> 4861
<211> 159
<212> PRT
<213> Homo sapiens
<400> 484
Met Gln Gly Ala Glu Leu His Pro Arg Cys His Ala Trp Val Ser Val
                                     10
Phe Ala Leu Gly Leu Thr Leu Lys Arg Thr Gly Gln Pro Gln Ala Pro
             20
                                 25
                                                      30
Ser Thr Gly Asp Leu Pro Ser Gly Pro Ala Gly Lys Ala Gly Ser Arg
Glu Leu Arg Gly Glu Pro Pro Thr Trp Val Trp His Pro Pro 11e Ser
                         55
                                              60
Asp Asn Phe His Gln Glu Asp Ser Lys Arg Pro His Val Cys Phe Asp
                     70
                                          75
                                                              80
65
Gly Glu Asp Pro Glu Val Asp Gly Phe Arg Gly Cys Pro Leu Asp Gly
                 85
                                      90
Glu Leu Gly Pro Cys Gly Lys Ser His Ala Ser Phe Gly Arg Pro Arg
            100
                                 105
                                                     110
Pro Val Ala Pro Thr Leu His Pro His Pro Tyr Pro Cys Ser Cys Cys
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Pro Ser Ile Lys Pro Pro Leu Arg Gly Leu Thr Gly Arg Gly Gln
130

135

140

Ala Trp Arg Gly Ser His Tyr Arg Thr Pro Gly His Met Thr Arg
145

150

155

<210> 4862

<211> 781

<212> PRT

<213> Homo sapiens

<400> 485

Met Lys Ser Ser Gly Pro Val Glu Arg Leu Leu Arg Ala Leu Gly Arg

1 5 10 15

Arg Asp Ser Ser Arg Ala Ala Ser Arg Pro Arg Lys Ala Glu Pro His 20 25 30

Ser Phe Arg Glu Lys Val Phe Arg Lys Lys Pro Pro Val Cys Ala Val 35 40 45

Cys Lys Val Thr Ile Asp Gly Thr Gly Val Ser Cys Arg Val Cys Lys
50 55 60

Val Ala Thr His Arg Lys Cys Glu Ala Lys Val Thr Ser Ala Cys Gln
65 70 75 80

Ala Leu Pro Pro Val Glu Leu Arg Arg Asn Thr Ala Pro Val Arg Arg 85 90 95

lle Glu His Leu Gly Ser Thr Lys Ser Leu Asn His Ser Lys Gln Arg 100 105 110

Ser Thr Leu Pro Arg Ser Phe Ser Leu Asp Pro Leu Met Glu Arg Arg 115 120 125

Trp Asp Leu Asp Leu Thr Tyr Val Thr Glu Arg Ile Leu Ala Ala Ala 130 135 140

Phe Pro Ala Arg Pro Asp Glu Gln Arg His Arg Gly His Leu Arg Glu 145 150 155 160

Leu Ala His Val Leu Gln Ser Lys His Arg Asp Lys Tyr Leu Leu Phe 165 170 175

Asn Leu Ser Glu Lys Arg His Asp Leu Thr Arg Leu Asn Pro Lys Val

Gln	Asp	Phe	Gly	Trp	Pro	Glu	Leu	His	Ala	Pro	Pro	Leu	Asp	Lys	Leu
		195					200					205			
Cys	Ser	He	Cys	Lys	Ala	Met	Glu	Thr	Trp	Leu	Ser	Ala	Asp	Pro	Gln
	210					215					220				
His	Val	Val	Val	Leu	Tyr	Cys	Lys	Gly	Asn	Lys	Gly	Lys	Leu	Gly	Val
225					230					235					240
He	Val	Ser	Ala	Tyr	Met	His	Tyr	Ser	Lys	He	Ser	Ala	Gly	Ala	Asp
				245					250					255	
Gln	Ala	Leu	Ala	Thr	Leu	Thr	Met	Arg	Lys	Phe	Cys	Glu	Asp	Lys	Val
			260					265					270		
Ala	Thr	Glu	Leu	Gln	Pro	Ser	Gln	Arg	Arg	Tyr	Ile	Ser	Tyr	Phe	Ser
		275					280					285			
Gly	Leu	Leu	Ser	GIy	Ser	He	Arg	Met	Asn	Ser	Ser	Pro	Leu	Phe	Leu
	290					295					300				
His	Tyr	Val	Leu	lle	Pro	Met	Leu	Pro	Ala	Phe	Glu	Pro	Gly	Thr	Gly
305					310					315					320
Phe	Gln	Pro	Phe	Leu	Lys	lle	Tyr	Gln	Ser	Met	Gln	Leu	Val	Tyr	Thr
				325					330					335	
Ser	Gly	Val	Tyr	His	Ile	Ala	Gly	Pro	Gly	Pro	Gln	Gln	Leu	Cys	He
			340					345					350		
Ser	Leu	Glu	Pro	Ala	Leu	Leu	Leu	Lys	Gly	Asp	Val	Met	Val	Thr	Cys
		355					360					365			
Tyr	His	Lys	Gly	Gly	Arg	Gly	Thr	Asp	Arg	Thr	Leu	Val	Phe	Arg	Val
	370					375					380				
Gln	Phe	His	Thr	Cys	Thr	lle	His	Gly	Pro	Gln	Leu	Thr	Phe	Pro	Lys
385					390					395					400
Asp	Gln	Leu	Asp	Glu	Ala	Trp	Thr	Asp	Glu	Arg	Phe	Pro	Phe	Gln	Ala
				405					410					415	
Ser	Val	Glu	Phe	Val	Phe	Ser	Ser	Ser	Pro	Glu	Lys	He	Lys	Gly	Ser
			420					425					430		
Thr	Pro	Arg	Asn	Asp	Pro	Ser	Val	Ser	Val	Asp	Tyr	Asn	Thr	Thr	Glu
		435					440					445			
Pro	Ala	Val	Arg	Trp	Asp	Ser	Tyr	Glu	Asn	Phe	Asn	Gln	His	His	Glu
	450					455					460				
Asp	Ser	Val	Asp	Gly	Ser	Leu	Thr	His	Thr	Arg	Gly	Pro	Leu	Asp	Gly
465					470					475					480

Ser	Pro	Tyr	Ala		Val	Gln	Arg	Pro		Arg	Gln	Thr	Pro		Ala
				485					490					495	
Pro	Ser	Pro	Glu	Pro	Pro	Pro	Pro		Met	Leu	Ser	Val		Ser	Asp
			500					505					510		
Ser	Gly	His	Ser	Ser	Thr	Leu	Thr	Thr	Glu	Pro	Ala	Ala	Glu	Ser	Pro
		515					520					525			
Gly	Arg	Pro	Pro	Pro	Thr	Лlа	Ala	Glu	Arg	Gln	Glu	Leu	Asp	Arg	Leu
	530					535					540				
Leu	Gly	Gly	Cys	Gly	Val	Ala	Ser	Gly	Gly	Arg	G1 y	Ala	Gly	Arg	Glu
545					550					555					560
Thr	Ala	He	Leu	Asp	Asp	Glu	Glu	Gln	Pro	Thr	Val	G1 y	Gly	Gly	Pro
				565					570					575	
His	Leu	Gly	Val	Tyr	Pro	Gly	His	Arg	Pro	Gly	Leu	Ser	Arg	His	Cys
			580					585					590		
Ser	Cys	Arg	Gln	Gly	Tyr	Arg	Glu	Pro	Cys	Gly	Val	Pro	Asn	Gly	Gly
		595					600					605			
Tyr	Tyr	Arg	Pro	Glu	Gly	Thr	Leu	Glu	Arg	Arg	Arg	Leu	Ala	Tyr	Gly
	610					615					620				
Gly	Tyr	Glu	Gly	Ser	Pro	Gln	Gly	Tyr	Ala	Glu	Ala	Ser	Met	Glu	Lys
625					630					635					640
Arg	Arg	Leu	Cys	Arg	Ser	Leu	Ser	Glu	Gly	Leu	Tyr	Pro	Tyr	Pro	Pro
				645					650					655	
Glu	Met	Gly	Lys	Pro	Ala	Thr	Gly	Asp	Phe	Gly	Tyr	Arg	Ala	Ser	Ser
			660					665					670		
Ala	Ala	Leu	Ser	Cys	Ser	Pro	Arg	Pro	Thr	Pro	Ala	Val	Val	His	Phe
		675					680					685			
Lys	Val	Ser	Ala	Gln	Gly	He	Thr	Leu	Thr	Asp	Asn	Gln	Arg	Lys	Leu
	690					695					700				
Phe	Phe	Arg	Arg	His	Tyr	Pro	Val	Asn	Ser	Пе	Thr	Phe	Ser	Ser	Thr
705					710					715					720
Asp	Pro	Gln	Asp	Arg	Arg	Trp	Thr	Asn	Pro	Asp	Gly	Thr	Thr	Ser	Lys
				725					730	ı				735	
11e	Phe	Gly	Phe	Val	Ala	Lys	Lys	Pro	G1 y	Ser	Pro	Trp	Glu	Asn	Val
			740					745					750		
Cys	His	Leu	Phe	Ala	Glu	Leu	Asp	Pro	Asp	G1n	Pro	Ala	G1 y	Λla	He

.

755 760 765

Val Thr Phe Ile Thr Lys Val Leu Leu Gly Gln Arg Lys
770 775 780

<210> 4863

<211> 114

<212> PRT

<213> Homo sapiens

<400> 486

Met Ile Lys Glu Leu Thr Gln Asn Leu Asn Thr Phe Phe Ile Glu Phe 1 5 10 15

Ile Tyr Gly Cys Leu Leu Phe Val Glu Phe Phe Ser Ser Leu Phe Ser 20 25 30

Phe Phe Phe Ser Phe Leu Ser Ser Leu Leu Phe Ser Phe Phe Ser Val

Ala Gln Ala Gly Val Gln Trp His Asp Leu Gly Ser Leu Gln Pro Pro 50 55 60

Pro Pro Arg Phe Lys His Leu Ser Cys Leu Ser Leu Pro Ser Ser Trp 65 70 75 80

Asp Tyr Arg Cys Pro Pro Pro Ser Pro Ala Asn Phe Cys 11e Phe Ser 85 90 95

Arg Asp Arg Val Ser Pro Cys Trp Leu Gly Trp Ser Arg Thr Ser Asp 100 105 110

Leu Lys

<210> 4864

<211> 141

<212> PRT

<213> Homo sapiens

<400> 487

Met Pro Val 11e Pro Ala Leu Gly Glu Ala Lys Gly Glu Val Leu Pro

5 10 Pro Gly Asp Thr Thr Thr Ile 11e Pro Leu Asn Trp Met Leu Lys Ser 20 25 30 Pro Pro Gly His Phe Gly Leu Leu Leu Leu Leu Ser Gln Gln Ala Lys 40 Asn Gly Val Met Val Leu Ala Gly Val Thr Asp Pro Glu Tyr Gln Asp 55 60 Glu Ile Ser Leu Leu His Asn Glu Gly His Leu Lys Glu Val Lys 70 75 65 80 Met Glu Gly Ala Arg Leu Gly Leu Pro Gly Arg Ala Glu Ser Leu Glu 85 90 His Gln Val Gln Ser His Leu Asn Met Ile Ala Gln Ser Gln Arg Thr 105 Phe Gln Lys Lys Asp Ala Gly Lys Ala Ile lle Leu Ser, Lys Leu Thr 120 125 115 Gln Glu Gln Lys Thr Lys His Cys Met Phe Ser Leu His 135

<210> 4865

<211> 731

<212> PRT

<213> Homo sapiens

<400> 488

Met His Leu Arg Leu Arg Pro Glu Val Gly Arg Ser Arg Ala Arg Ser 1 5 10 15

Gly Glu Pro Ala Gly Ser Ala Ala Ala Arg Glu Val Met Ala Ala Ala  $20 \hspace{1.5cm} 25 \hspace{1.5cm} 30$ 

Gly Ser Gly Ser Ser Ala Ser Arg Gly Phe Tyr Phe Asn Thr Val Leu
50 55 60

Ser Leu Ala Arg Ser Leu Ala Val Gln Arg Pro Ala Ser Leu Glu Lys 65 70 75 80

Val Arg Lys Leu Cys Met Cys Pro Val Asp Phe His Gly 11e Phe

				85					90					95	
Gln	Leu	Asp	Glu	Arg	Arg	Arg	Asp	Ala	Val	He	Ala	Leu	Gly	He	Phe
			100					105					110		
Leu	He	Glu	Ser	Asp	Leu	Gln	His	Lys	Asp	Cys	Val	Val	Pro	Tyr	Leu
		115					120					125			
Leu	Arg	Leu	Leu	Lys	Gly	Leu	Pro	Lys	Val	Tyr	Trp	Val	Glu	Glu	Ser
	130					135					140				
Thr	Ala	Arg	Lys	Gly	Arg	Gly	Ala	Leu	Pro	Val	Ala	Glu	Ser	Phe	Ser
145					150					155					160
Phe	Cys	Leu	Val	Thr	Leu	Leu	Ser	Asp	Val	Ala	Tyr	Arg	Asp	Pro	Ser
				165					170					175	
Leu	Arg	Asp	Glu	lle	Leu	Glu	Val	Leu	Leu	Gln	Val	Leu	His	Val	Leu
			180					185					190		
Leu	Gly	Met	Cys	Gln	Ala	Leu	Glu	Пе	Gln	Asp	Lys	Glu	Tyr	Leu	Cys
		195					200					205			
Lys	Tyr	Ala	He	Pro	Cys	Leu	lle	Gly	11e	Ser	Arg	Ala	Phe	G1 y	Arg
	210					215					220				
Tyr	Ser	Asn	Met	Glu	Glu	Ser	Leu	Leu	Ser	Lys	Leu	Phe	Pro	Lys	lle
225					230					235					240
Pro	Pro	His	Ser	Leu	Arg	Val	Leu	Glu	Glu	Leu	Glu	Gly	Val	Arg	Arg
				245					250					255	
Arg	Ser	Phe	Asn	Asp	Phe	Arg	Ser	He	Leu	Pro	Ser	Asn	Leu	Leu	Thr
			260					265					270		
Val	Cys	Gln	Glu	Gly	Thr	Leu	Lys	Arg	Lys	Thr	Ser	Ser	Val	Ser	Ser
		275					280					285			
He	Ser	Gln	Val	Ser	Pro	Glu	Arg	Gly	Met	Pro	Pro	Pro	Ser	Ser	Pro
	290					295					300				
-	Gly	Ser	Ala	Phe		Tyr	Phe	Glu	Ala		Cys	Leu	Pro	Asp	
305					310					315					320
Thr	Ala	Leu	Glu		Glu	Tyr	Tyr	Phe		Thr	lle	Ser	Ser		Phe
		_	_	325					330					335	
Ser	Val	Ser		Leu	Phe	Asn	Gly		Thr	Tyr	Lys	GIu		Asn	He
_			340					345					350		
Pro	Leu		Met	Leu	Arg	Glu		Leu	Asn	Leu	Val		Lys	He	Val
63	61	355	V 1	,	,	C	360		, ,	7.7	17. 3	365	C	X7 7	
Glu	61u	Ala	val	Leu	LVS	Ser	Leu	Asp	Ala	116	val	Ala	Ser	val	мet

	370					375					380				
Glu	Ala	Asn	Pro	Ser	Ala	Asp	Leu	Tyr	Tyr	Thr	Ser	Phe	Ser	Asp	Pro
385					390					395					400
Leu	Tyr	Leu	Thr	Met	Phe	Lys	Met	Leu	Arg	Asp	Thr	Leu	Tyr	Tyr	Met
				405					410					415	
Lys	Asp	Leu	Pro	Thr	Ser	Phe	Val	Lys	Glu	He	His	Asp	Phe	Val	Leu
			420					425					430		
Glu	Gln	Phe	Asn	Thr	Ser	Gln	Gly	Glu	Leu	Gln	Lys	He	Leu	His	Asp
		435					440					445			
Ala	Asp	Arg	He	His	Asn	Glu	Leu	Ser	Pro	Leu	Lys	Leu	Arg	Cys	Gln
	450					455					460				
Ala	Asn	Ala	Ala	Cys	Val	Asp	Leu	Met	Val	Trp	Ala	Val	Lys	Asp	Glu
465					470					475					480
Gln	Gly	Ala	Glu	Asn	Leu	Cys	lle	Lys	Leu	Ser	Glu	Lys	Leu	Gln	Ser
				485					490					495	
Lys	Thr	Ser	Ser	Lys	Va]	He	He	Ala	His	Leu	Pro	Leu	Leu	lle	Cys
			500					505					510		
Cys	Leu	Gln	Gly	Leu	Gly	Arg	Leu	Cys	Glu	Arg	Phe		Val	Val	Val
		515					520					525			
His	Ser	Val	Thr	Pro	Ser	Leu	Arg	Asp	Phe	Leu	Val	He	Pro	Ser	Pro
	530					535					540				
Val	Leu	Val	Lys	Leu	Tyr	Lys	Tyr	His	Ser		Tyr	His	Thr	Val	
545					550					555					560
G1 y	Asn	Asp	lle		He	Ser	Val	Thr		Glu	His	Ser	Glu		Thr
				565					570				_	575	0.1
Leu	Asn	Val		Ser	Gly	Lys	Lys		GIn	Pro	Ser	Met		Glu	GIn
			580					585	0		0		590		6.1
Leu	Arg		He	Ala	He	Asp		He	Cys	Arg	Cys		Lys	Ala	GIy
,	ar t	595		D	12 1	7.3	600	61	. 1	151		605	C .	,	C
Leu		Val	Asp	Pro	val	He	val	610	Ala	Phe		ATa	5er	Leu	ser
Α.	610	1	т		C	615	C1	Can	1	1	620	A 1	H. a	·1	Tla
	Arg	Leu	lyr	116		Gln	GIU	ser	ASP		ASP	ATS	nis	reu	
625 D	A	Hi a	The	71.	630	Ala	Lau	C1	Uio	635	Ala	Val	A 1 c.	Lau	640
110	nsp	птѕ	1111	645	мв	Ala	ren	GIŸ	650	116	ига	vati	MId	655	ит 8
Acr	Thr	Pro	lve		Met	Glu	Pro	116		Gla	Πa	Leu	Gla		lve

660 665 670 Phe Cys Gln Pro Pro Ser Pro Leu Asp Val Leu Ile Ile Asp Gln Leu 680 685 Gly Cys Leu Val 11e Thr Gly Asn Gln Tyr 11e Tyr Gln Glu Val Trp 695 700 Asn Leu Phe Gln Gln Ile Ser Val Lys Ala Ser Ser Val Val Tyr Ser 710 715 720 Ala Thr Lys Asp Tyr Lys Asp His Gly Tyr Arg 725 730

<210> 4866

<211> 288

<212> PRT

<213> Homo sapiens

<400> 489

 Met
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 Arg
 Glu
 Leu
 Ala
 Pro
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 Leu
 Leu
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 Leu
 Leu
 Ser
 Ile
 His

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 5
 10
 10
 15
 15

 Ser
 Ala
 Leu
 Ala
 Met
 Arg
 Ile
 Gly
 Arg
 Phe
 Gly

 30
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Asn Arg 11e Cys Pro 11e Leu Met Glu Lys Leu Asn Arg Asn Ser Arg 65 70 75 80

Arg Gly 11e Thr Tyr Asn Tyr Val 11e Ser Ser Arg Leu Gly Arg Asn 85 90 95

Thr Tyr Lys Glu Gln Tyr Ala Phe Leu Tyr Lys Glu Lys Leu Val Ser 100 105 110

Val Lys Arg Ser Tyr His Tyr His Asp Tyr Gln Asp Gly Asp Ala Asp 115 120 125

Val Phe Ser Arg Glu Pro Phe Val Val Trp Phe Gln Ser Pro His Thr 130 135 140

Ala Val Lys Asp Phe Val lle lle Pro Leu His Thr Thr Pro Glu Thr

150 155 160 145 Ser Val Lys Glu Ile Asp Glu Leu Val Glu Val Tyr Thr Asp Val Lys 175 170 165 His Arg Trp Lys Ala Glu Asn Phe Ile Phe Met Gly Asp Phe Asn Ala 180 185 Gly Cys Ser Tyr Val Pro Lys Lys Ala Trp Lys Asn Val Arg Leu Arg 205 200 Thr Asp Pro Arg Phe Val Trp Leu Ile Gly Asp Gln Glu Asp Thr Thr 220 215 210 Val Lys Lys Ser Thr Asn Cys Ala Tyr Asp Arg Ile Val Leu Arg Gly 230 235 Gln Glu Ile Val Ser Ser Val Val Pro Lys Ser Asn Ser Val Phe Asp 245 250 255 Phe Gln Lys Ala Tyr Lys Leu Thr Glu Glu Glu Val Arg Leu Pro Ser 265 Cys Leu Ser Met Pro Leu Ser Trp Lys Asp Glu Leu Ala Trp Ala Thr 275 280 285

<210> 4867

<211> 143

<212> PRT

<213> Homo sapiens

<400> 490

Met Pro Ser Thr Pro Ser Ser Arg Arg Ser Arg Asn Ser Ser Arg Ser 1 5 10 15

Pro Pro Gln Thr Ala Asp Cys Trp Ala Ser Ser Lys Ala Arg Thr Pro 20 25 30

Ser Ser Thr Glu Leu Gln Pro Cys Leu Glu Gly Arg Pro Pro Ser Cys

40
45

His Pro Asp Leu Ser Gly Ser Pro Phe Pro Pro Ser Leu Asp Pro Lys
50 55 60

Ser Gly Ala Ile His Gln Glu Cys Arg Pro Leu Val Gly Gly Ala Gly 65 70 75 80

<210> 4868

<211> 281

<212> PRT

<213> Homo sapiens

<400> 491

Met Ala Val Asp Ser Leu Leu Arg Ile Leu Lys Thr Leu Arg Leu Asp

1 5 10 15

Phe Ile Gln Glu Leu Glu Val Phe Tyr Trp Cys Arg Asp Phe Leu Val

20 25 30

Leu Ala Glu Pro Asn Leu Ser Ala Ile Gln Leu Gly Arg lle Phe Asn 35 40 45

Leu Arg Ser Leu Lys Leu Phe Tyr Tyr Lys Trp Ala Phe Ser Ser Trp 50 55 60

Val Arg Arg Pro Ser Ser Tyr Phe Phe Ser Gln Leu Thr Met Leu Gly
65 70 75 80

His Leu Arg Lys Leu His Leu Ser His Ser Tyr Leu Val Gly Lys Leu 85 90 95

His Tyr 11e Leu Ser Cys Leu Trp Val Pro Leu His Ser Leu Glu I1e 100 105 110

Cys Asn Cys Lys Leu Leu Asp Thr Asp 11e Thr Tyr Leu Ser Arg Ser 115 120 125

His His Thr Thr Cys Leu Lys Lys Leu Asp Leu Ser Val Asn Asp Leu 130 135 140

Ser Tyr Met Ile Pro Gly Pro Leu Gly Thr Leu Leu Arg Ala Val Ser 145 150 155 160 Gly Thr Leu Gln His Leu Asp Leu Lys His Cys Trp Leu Lys Asp Ala His Leu Ser Ala Leu Leu Pro Ala Leu Cys Arg Cys Ser His Leu Ser Ser Leu Ser Leu Ser Asp Asn Pro Ile Ser Ser Ala Cys Leu Leu Ser Leu Leu Glu His Thr Met Gly Leu Met Glu Leu Lys Gln Val Leu Tyr Pro Ile Pro Val Asp Cys Cys Ile Tyr Leu His Gly Val Cys Arg Gly Pro Val Asn Glu Asp Lys Leu Cys Gln Leu Gln Ala Glu Ile Gln Lys Gln Leu Gln Ala Met Gln Gln Ala Asp Met Gln Trp Ser Pro Ser Thr Val Phe Ala Tyr Ala Ala Gly Ala Val 

<210> 4869

<211> 197

<212> PRT

<213> Homo sapiens

<400> 492

Met Val Gln Ala Pro Cys Leu Val Val Leu Ser Phe His Val Val Leu Ser Leu Gln Val His Arg Ser Gln Glu Leu Gly Phe Trp Asn Leu His Leu Asp Phe Arg Arg Cys Met Glu Met Pro Gly Cys Pro Gly Arg Asn Leu Leu Gln Gly Trp Gly Ser His Gly Glu Pro Leu Leu Gly Gln Cys Arg Arg Glu Met Trp Gly Gly Ser Pro Thr Gln Ser Pro Tyr Trp Gly Thr Val Leu Gln Thr Gln Asn Gly Arg Ser Thr Asp Ser Leu His Cys 

Val Pro Gly Lys Ala Thr Asp Thr Gln Cys Gln Pro Met Lys Ala Thr Arg Arg Glu Thr Val Pro Cys Lys Ala Thr Gly Ala Glu Leu Leu Lys 115 120 Thr Met Gly Thr Tyr Leu Leu Tyr Gln His Asp Leu Asp Val Arg His 135 140 Gly Val Lys Gly Glu His Phe Gly Ala Leu Arg Phe Asp Cys Pro Ala 155 145 150 160 Gly Phe Trp Thr Cys Met Gly Pro Val Ala Pro Leu Phe Trp Pro Val 170 165 Ser Pro Ile Trp Asn Gly Tyr Ile Tyr Pro Met Pro Ile Pro Pro Leu 190 185 Tyr Pro Gly Ser Asn 195

<210> 4870

<211> 218

<212> PRT

<213> Homo sapiens

<400> 493

Met Trp Leu His Arg Gly Pro Leu Arg Pro Pro Gly Val Arg Trp Thr

1 5 10 15

Pro Trp Ala Phe Leu Glu Ala Cys Ser Trp Gly Pro Ala Leu Ser Leu
20 25 30

Leu Gly Ser Gly His Ser Leu Pro Gly Thr His Glu Gln Ala Ala Trp
35 40 45

Ser Arg Gly Cys Gly Gln His Gly Gln Ser Pro Thr Gln Lys Cys Lys
50 55 60

Ser Ser Lys Glu Pro Leu Ala Gln Ala Pro Pro His Gln Gly Phe Ala 65 70 75 80

Asp Val Leu Glu Arg Pro Thr Leu Glu Pro Phe Gly Val Leu Ala Pro
85 90 95

Pro Val Pro Ser Ala Leu Val Glu Ala Ala Ala Thr Ser Pro Pro Gln 100 105 110 Gly Ala Pro Arg Gly Ile Leu Trp Asp Arg Cys Pro Gln Ile Gln Val Leu Glu Gly Gln Arg Val Arg Phe Pro Ser Gln Pro Gln His Pro Ser His Leu Ala Pro Arg Gly Gly Cys Gly Trp Arg Pro Asp Ser Arg Pro Leu Leu Pro Thr Pro Ser Gly Leu Ser Ser Phe Phe Pro Leu Asp Ala Gln Cys Trp Pro Trp Arg Thr Val Ser Trp Arg Met Ala Val Gly Glu Ala Val Phe Val Pro Leu Gln His Pro Pro Leu Leu His Gly Ser Pro lle Pro Lys Leu Leu Pro Gly Pro Leu Leu 

<210> 4871

<211> 349

<212> PRT

<213> Homo sapiens

<400> 494

Met Ala Met Ala Phe Thr Asp Leu Leu Asp Ala Leu Gly Ser Met Gly Arg Phe Gln Leu Asn His Thr Ala Leu Leu Leu Leu Pro Cys Gly Leu Leu Ala Cys His Asn Phe Leu Gln Asn Phe Thr Ala Ala Val Pro Pro His His Cys Arg Gly Pro Ala Asn His Thr Glu Ala Ser Thr Asn Asp Ser Gly Ala Trp Leu Arg Ala Thr lle Pro Leu Asp Gln Leu Gly Ala Pro Glu Pro Cys Arg Arg Phe Thr Lys Pro Gln Trp Ala Leu Leu Ser 

Pro Asn Ser Ser Ile Pro Gly Ala Ala Thr Glu Gly Cys Lys Asp Gly

Trp	Val	Tyr	Asn	Arg	Ser	Val	Phe	Pro	Ser	Thr	He	Val	Met	Glu	Trp
		115					120					125			
Asp	Leu	Val	Cys	Glu	Ala	Arg	Thr	Leu	Arg	Asp	Leu	Ala	Gln	Ser	Val
	130					135					140				
Tyr	Met	Ala	Gly	Val	Leu	Val	Gly	Ala	Ala	Val	Phe	Gly	Ser	Leu	Ala
145					150					155					160
Asp	Arg	Leu	Gly	Cys	Lys	Gly	Pro	Leu	Val	Trp	Ser	Tyr	Leu	Gln	Leu
				165					170					175	
Ala	Ala	Ser	Gly	Ala	Ala	Thr	Ala	Tyr	Phe	Ser	Ser	Phe	Ser	Ala	Tyr
			180					185					190		
Cys	Val	Phe	Arg	Phe	Leu	Met	G1 y	Met	Thr	Phe	Ser	Gly	lle	lle	Leu
		195					200					205			
Asn	Ser	Va]	Ser	Leu	Val	Ala	Ser	Arg	Val	He	Pro	Leu	Ala	Pro	Pro
	210					215					220				
Ala	Trp	Gln	Val	Pro	Val	Ser	Cys	Thr	Glu	Ser	Ala	Glu	Gly	Gly	Cys
225					230					235					240
Asn	Glu	Arg	Glu	Glu	Gly	Gly	Arg	Gly	Lys	Ala	Asp	Gln	Gly	Gly	Asp
				245					250					255	
Glu	Leu	Leu	His	Pro	Lys	Arg	Val	Cys	Lys	Cys	Leu	His	Leu	Gln	Leu
			260					265					270		
Asn	Leu	Gly	Pro	Leu	Pro	Asn	Pro	Gly	His	Pro	Gln	Gly	His	Met	Leu
		275					280					285			
Ser	His	Gly	Asp	Leu	Arg	Gly	Arg	Gln	Arg	Ser	Ser	Gly	Ser	Gly	Glu
	290					295					300				
Gln	Gly	Gly	Ser	Cys	Glu	Pro	Glu	Ser	Arg	Asn	Gly	Arg	Leu	Pro	Ala
305					310					315					320
Val	Ala	Pro	Ala	Gly	Leu	Gly	Leu	Pro	Phe	Val	His	Leu	Pro	Leu	Ser
				325					330					335	
Ala	Arg	Glu	Lys	Gln	He	Leu	Ser	Ser	Lys	Phe	Gln	Ser			
			340					345							

<211> 421

<212> PRT

<213> Homo sapiens

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	Asn	Met	Ala	Asn	Phe	Leu	Arg	Gly	Phe	Glu	Glu	Lys	Gly	11e	Lys	Asn
				20					25			•		30		
	Asp	Arg	Pro	Glu	Asp	G1n	Leu	Ser	Lys	Glu	Lys	Lys	Lys	lle	Leu	Phe
			35					40					45			
	Ser	Phe	Cys	Glu	Val	Cys	Asn	He	Gln	Leu	Asn	Ser	Ala	Ala	Gln	Ala
		50					55					60				
	Gln	Val	His	Ser	Asn	Gly	Lys	Ser	His	Arg	Lys	Arg	Val	Lys	Gln	Leu
	65					70					75					80
	Ser	Asp	Gly	Gln	Pro	Pro	Pro	Pro	Ala	Gln	Ala	Ser	Pro	Ser	Ser	Asn
					85					90					95	
	Ser	Ser	Thr	Gly	Ser	Thr	Cys	His	Thr	Thr	Thr	Leu	Pro	Ala	Leu	Val
				100					105					110		
	Arg	Thr	Pro	Thr	Leu	Met	Met	Gln	Pro	Ser	Leu	Asp	lle	Lys	Pro	Phe
			115					120					125			
	Met	Ser	Phe	Pro	Val	Asp	Ser	Ser	Ser	Ala	Val	Gly	Leu	Phe	Pro	Asn
		130					135					140				
	Phe	Asn	Thr	Met	Asp	Pro	Val	Gln	Lys	Ala	Val	lle	Asn	His	Thr	Phe
	145					150					155					160
	G1 y	Val	Ser	lle	Pro	Pro	Lys	Lys	Lys	Gln	Va]	He	Ser	Cys	Asn	Val
					165					170					175	
	Cys	Gln	Leu	Arg	Phe	Asn	Ser	Asp	Ser	Gln	Ala	Glu	Ala	His	Tyr	Lys
				180					185					190		
	Gly	Ser		His	Ala	Lys	Lys	Val	Lys	Ala	Leu	Asp		Thr	Lys	Asn
			195					200					205			
	Lys		Lys	Met	Val	Pro		Lys	Asp	Ser	Ala		Ala	Asn	Pro	Ser
		210					215					220				
		Ser	He	Thr	Pro		Thr	G1 y	Asn	Asn		Asp	Lys	Ser	Glu	
	225					230	_	_		_	235	_	_		_	240
	Lys	Gly	Lys	Leu		Ala	Ser	Ser	Ser		Gln	Pro	Ser	Ser		Glu
		0.		n.	245		•	~	0.3	250	an:	•		Б	255	<b></b>
	Ser	Gly	Ser	Phe	Leu	Leu	Lys	Ser	GIy	Thr	Thr	Pro	Leu	Pro	Pro	Gly

			260					265					270		
Ala	Ala	Thr	Ser	Pro	Ser	Lys	Ser	Thr	Asn	Gly	Ala	Pro	Gly	Thr	Val
		275					280					285			
Val	Glu	Ser	Glu	Glu	Glu	Lys	Ala	Lys	Lys	Leu	Leu	Tyr	Cys	Ser	Leu
	290					295					300				
Cys	Lys	Va]	Ala	Val	Asn	Ser	Leu	Ser	Gln	Leu	Glu	Ala	His	Asn	Thr
305					310					315					320
Gly	Ser	Lys	His	Lys	Thr	Met	Val	Glu	Ala	Arg	Asn	Gly	Ala	Gly	Pro
				325					330					335	
lle	Lys	Ser	Tyr	Pro	Arg	Pro	Gly	Ser	Arg	Leu	Lys	Met	Gln	Asn	Gly
			340					345					350		
Ser	Lys	Gly	Ser	Gly	Leu	Gln	Asn	Lys	Thr	Phe	His	Cys	Glu	He	Cys
		355					360					365			
Asp	Val	His	Val	Asn	Ser	Glu	lle	Gln	Leu	Lys	Gln	His	lle	Ser	Ser
	370					375					380				
Arg	Arg	His	Lys	Asp	Arg	Val	Ala	Gly	Lys	Pro	Leu	Lys	Pro	Lys	Tyr
385					390					395					400
Thr	Pro	Cys	Lys	Val	Ile	Gly	Leu	Leu	Pro	Lys	Pro	Leu	Pro	Pro	Ala
				405					410					415	
Asn	Arg	Gln	Leu	Ser											
			420												
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<212	2> PI	RT													
<213	3> He	omo :	sapi	ens											
	0> 49														
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l				5					10					15	

lle Asp Asn Ser Val Asn Lys Lys Asp Leu Ser lle Cys Gly Ser Ser

Gly Glu Glu Phe Phe Asn Asn Cys Glu Val Leu Gln Cys Gly Phe Ser

 $\operatorname{Val}$  Pro  $\operatorname{Arg}$  Glu  $\operatorname{Asn}$  lle  $\operatorname{Arg}$  Thr  $\operatorname{Arg}$  His  $\operatorname{Lys}$  Ile  $\operatorname{Cys}$  Pro  $\operatorname{Cys}$   $\operatorname{Asp}$ 

	50					55					60				
Lys	Cys	Glu	Lys	Val	Phe	Pro	Ser	lle	Ser	Lys	Leu	Lys	Arg	His	Tyr
65					70					75					80
Leu	11e	His	Thr	Gly	Gln	Arg	Pro	Phe	Gly	Cys	Asn	He	Cys	Gly	Lys
				85					90					95	
Ser	Phe	Arg	Gln	Ser	Ala	His	Leu	Lys	Arg	His	Glu	Gln	Thr	His	Asn
			100					105					110		
Glu	Lys	Ser	Pro	Tyr	Ala	Ser	Leu	Cys	Gln	Val	Glu	Phe	Gly	Asn	Phe
		115					120					125			
Asn	Asn	Leu	Ser	Asn	His	Ser	G1 y	Asn	Asn	Val	Asn	Tyr	Asn	Ala	Ser
	130					135					140				
Gln	Gln	Cys	Gln	Ala	Pro	Gly	Val	Gln	Lys	Tyr	Glu	Val	Ser	Glu	Ser
145					150					155					160
Asp	Gln	Met	Ser	Gly	Val	Lys	Ala	Glu	Ser	Gln	Asp	Phe	He	Pro	G] y
				165					170					175	
Ser	Thr	Gly	Gln	Pro	Cys	Leu	Pro	Asn	Val	Leu	Leu	Glu	Ser	Glu	Gln
			180					185					190		
Ser	Asn	Pro	Phe	Cys	Ser	Tyr	Ser	Glu	His	Gln	Glu	Lys	Asn	Asp	Val
		195					200					205			
Phe	Leu	Tyr	Arg	Cys	Ser	Va]	Cys	Ala	Lys	Ser	Phe	Arg	Ser	Pro	Ser
	210					215					220				
Lys	Leu	Glu	Arg	His	Tyr	Leu	He	His	Ala		Gln	Lys	Pro	Phe	Glu
225					230					235					240
Cys	Ser	Val	Cys	Gly	Lys	Thr	Phe	Arg		Ala	Pro	His	Trp		Arg
				245					250					255	
His	Gln	Leu	Thr	His	Phe	Lys	Glu	Arg	Pro	Gln	Gly	Lys	Val	Val	Λla
			260					265					270		
Leu	Asp	Ser	Val	Met											
		275													

<211> 933

<212> PRT

<213> Homo sapiens

<400	)> 49	97													
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Phe	Val	11e	G1n	G1n	Val	Ser	Ser	Gln	Glu	Leu	Ser	Cys	Lys	Gly	Arg
			20					25					30		
Cys	Phe	Glu	Ser	Phe	Glu	Arg	Gly	Arg	Glu	Cys	Asp	Cys	Asp	Ala	Glr
		35					40					45			
Cys	Lys	Lys	Tyr	Asp	Lys	Cys	Cys	Pro	Asp	Tyr	Glu	Ser	Phe	Cys	Ala
	50					55					60				
G1u	Val	His	Asn	Pro	Thr	Ser	Pro	Pro	Ser	Ser	Lys	Lys	Ala	Pro	Pro
65					70					75					80
Pro	Ser	Gly	Ala	Ser	Gln	Thr	He	Lys	Ser	Thr	Thr	Lys	Arg	Ser	Pro
				85					90					95	
Lys	Pro	Pro	Asn	Lys	Lys	Lys	Thr	Lys	Lys	Val	He	Glu	Ser	Glu	Glu
			100					105					110		
He	Thr	Glu	Glu	His	Ser	Val	Ser	Glu	Λsn	Gln	Glu	Ser	Ser	Ser	Sei
		115					120					125			
Ser		Ser	Ser	Ser	Ser	Ser	Ser	Thr	He	Arg	Lys	He	Lys	Ser	Sei
	130					135					140				
Lys	Asn	Ser	Ala	Ala	Asn	Arg	Glu	Leu	Gln	Lys	Lys	Leu	Lys	Val	Lys
145					150					155					160
Asp	Asn	Lys	Lys		Arg	Thr	Lys	Lys	Lys	Pro	Thr	Pro	Lys		Pro
				165					170					175	
Va]	Val	Asp		Ala	Gly	Ser	Gly		Asp	Asn	Gly	Asp	Phe	Lys	Va.
		_	180					185			_		190		_
Thr	Thr		Asp	Thr	Ser	Thr		Gln	His	Asn	Lys		Ser	Thr	Sei
•		195	ar.	m)			200					205		,	Б
Pro		11e	lhr	Thr	Ala		Pro	He	Asn	Pro		Pro	Ser	Leu	Pro
15	210	C		T)	C	215	0.1	ar i	C		220	11. 3			61
	Asn	Бег	Asp	lhr		Lys	Glu	Ihr	Ser		Ihr	Val	Asn	Lys	
225	ті	V. I	C1	TI.	230	C1	TI.	T1	ть	235	Δ	1	C1	Tl	240
Inr	Ihr	val	GIU		Lys	GIU	inr	Inr		Inr	Asn	Lys	Gln		Sei
Tl	Λ	C1	Luc	245	1	T'l	TL	C	250	Lua	C1	Tha	Cla	255 San	т1.
ınr	Asp	uly		GIU	LYS	ınr	ınr		ата	Lys	GIU	I III.	Gln	ser	116
C1	Luc	The	260 Ser	۸۱۸	Luc	Acr	Lan	265	Dro	The	Sor	Lvc	270 Val	Lou	Δ1.
1111	1 1	1 (1)	. 11-1	(1 1 2)	1 1/4	11 5 13	1 (-11)	11 12	1 1 ( )	1111	. 31-21	1 V ~	101	1.00	73.12

		275					280					285			
Lys	Pro	Thr	Pro	Lys	Ala	Glu	Thr	Thr	Thr	Lys	G1 y	Pro	Ala	Leu	Thr
	290					295					300				
Thr	Pro	Lys	Glu	Pro	Thr	Pro	Thr	Thr	Pro	Lys	Glu	Pro	Ala	Ser	Thr
305					310					315					320
Thr	Pro	Lys	Glu	Pro	Thr	Pro	Thr	Thr	lle	Lys	Ser	Ala	Pro	Thr	Thr
				325					330					335	
Pro	Lys	Glu	Pro	Ala	Pro	Thr	Thr	Thr	Lys	Ser	Ala	Pro	Thr	Thr	Pro
			340					345					350		
Lys	Glu	Pro	Ala	Pro	Thr	Thr	Thr	Lys	Glu	Pro	Ala	Pro	Thr	Thr	Pro
		355					360					365			
Lys	Glu	Pro	Ala	Pro	Thr	Thr	Pro	Glu	Thr	Pro	Pro	Pro	Thr	Thr	Ser
	370					375					380				
Glu	Val	Ser	Thr	Pro	Thr	Thr	Thr	Lys	Glu	Pro	Thr	Thr	He	His	Lys
385					390					395					400
Ser	Pro	Asp	Glu	Ser	Thr	Pro	Glu	Leu	Ser	Ala	Glu	Pro	Thr	Pro	Lys
				405					410					415	
Ala	Leu	Glu	Asn	Ser	Pro	Lys	Glu	Pro	Gly	Val	Pro	Thr	Thr	Lys	Thr
			420					425					430		
Pro	Ala	Ala	Thr	Lys	Pro	Glu	Met	Thr	Thr	Thr	Ala	Lys	Asp	Lys	Thr
		435					440					445			
Thr	Glu	Arg	Asp	Leu	Arg	Thr	Thr	Pro	Glu	Thr	Thr	Thr	Ala	Λla	Pro
	450					455					460				
Lys	Met	Thr	Lys	G1u	Thr	Ala	Thr	Thr	Thr	Glu	Lys	Thr	Thr	Glu	Ser
465					470					475					480
Lys	lle	Thr	Ala	Thr	Thr	Thr	Gln	Val	Thr	Ser	Thr	Thr	Thr	Gln	Asp
				485					490					495	
Thr	Thr	Pro	Phe	Lys	11e	Thr	Thr	Leu	Lys	Thr	Thr	Thr	Leu	Ala	Pro
			500					505					510		
Lys	Val	Thr	Thr	Thr	Lys	Lys	Thr	He	Thr	Thr	Thr	Glu	He	Met	Asn
		515					520					525			
							Dura	Luc	Aan	Λοσσ	A10	The	Acn	C .	Luc
Lys	Pro	Glu	G1u	Thr	Ala	Lys	110	LyS	ASP	MΙŞ	Ala	1111	nsn	Ser	Lys
Lys	Pro 530		G1u	Thr	Ala	Lys 535		LyS	Asp	Λig	540		изп	Ser	Lys
	530					535					540				
	530 Thr					535 G1n					540 Ala				

				565					570					575	
Thr	Thr	Pro	Thr	Pro	Arg	Lys	Met	Thr	Ser	Thr	Met	Pro	Glu	Leu	Asn
			580					585					590		
Pro	Thr	Ser	Arg	11e	Ala	Glu	Ala	Met	Leu	Gln	Thr	Thr	Thr	Arg	Pro
		595					600					605			
Asn	Gln	Thr	Pro	Asn	Ser	Lys	Leu	Val	G1u	Val	Asn	Pro	Lys	Ser	Glu
	610					615					620				
Asp	Ala	Gly	Gly	Ala	Glu	Gly	Glu	Thr	Pro	llis	Met	Leu	Leu	Arg	Pro
625					630					635					640
His	Val	Phe	Met	Pro	Glu	Val	Thr	Pro	Asp	Met	Asp	Tyr	Leu	Pro	Arg
				645					650					655	
Val	Pro	Asn	Gln	Gly	lle	He	Пе	Asn	Pro	Met	Leu	Ser	Asp	Glu	Thr
			660					665					670		
Asn	He	Cys	Asn	Gly	Lys	Pro	Val	Asp	G1 y	Leu	Thr	Thr	Leu	Arg	Asn
		675					680					685			
Gly	Thr	Leu	Val	Ala	Phe	Arg	Gly	His	Tyr	Phe	Trp	Met	Leu	Ser	Pro
							•								
	690					695					700				
Phe	Ser	Pro	Pro	Ser	Pro	Ala	Arg	Arg	lle	Thr	Glu	Val	Trp	Gly	He
705					710					715					720
Pro	Ser	Pro	Ile	Asp	Thr	Val	Phe	Thr	Arg	Cys	Asn	Cys	Glu	Gly	Lys
				725					730					735	
Thr	Phe	Phe	Phe	Lys	Asp	Ser	Gln	Tyr	Trp	Arg	Phe	Thr	Asn	Asp	He
			740					745					750		
Lys	Asp	Ala	Gly	Tyr	Pro	Lys	Pro	lle	Phe	Lys	Gly	Phe	$\operatorname{Gl} y$	Gly	Leu
		755					760					765			
Thr	Gly	Gln	lle	Val	Ala	Ala	Leu	Ser	Thr	Ala	Lys	Tyr	Lys	Asn	Trp
	770					775					780				
Pro	Glu	Ser	Val	Tyr	Phe	Phe	Lys	Arg	Gly	Gly	Ser	He	Gln	Gln	Tyr
785					790					795					800
He	Tyr	Lys	Gln	Glu	Pro	Val	Gln	Lys	Cys	Pro	Gly	Arg	Arg	Pro	Ala
				805					810					815	
Leu	Asn	Tyr	Pro	Val	Tyr	Gly	Glu	Thr	Thr	Gln	Val	Arg	Arg	Arg	Arg
			820					825					830		
Phe	Glu	Arg	Ala	He	Gly	Pro	Ser	Gln	Thr	His	Thr	He	Arg	He	Gln

Tyr Ser Pro Ala Arg Leu Ala Tyr Gln Asp Lys Gly Val Leu His Asn Glu Val Lys Val Ser Ile Leu Trp Arg Gly Leu Pro Asn Val Val Thr Ser Ala lle Ser Leu Pro Asn lle Arg Lys Pro Asp Gly Tyr Asp Tyr Tyr Ala Phe Ser Lys Asp Gln Tyr Tyr Asn Ile Asp Val Pro Ser Arg Thr Ala Arg Ala Ile Thr Thr Arg Ser Gly Gln Thr Leu Ser Lys Val Trp Tyr Asn Cys Pro <210> 4875 <211> 216 <212> PRT <213> Homo sapiens <400> 498 Met Arg Trp Trp His Arg Cys Gly Gln Pro Gly Thr Asp Val Val Leu Thr Gly Lys Asn Leu Pro Arg Pro Thr Leu Ser Thr Pro Ala Glu Ser Ser Gln Pro Gly Gln Gly Ala His Val Gly Pro Asn Ala His Ala Pro His Ser Cys Gly Glu Leu Thr Ala Arg Pro Arg Gly Ala Arg Gly Ala Gln Arg Pro Arg Ser Pro Leu Leu Arg Arg Ala His Ser Gln Ala Arg Gly Arg Thr Trp Gly Pro Thr Pro Thr Leu Pro Thr Pro Ala Glu Ser

Ser Gln Pro Gly Gln Gly Ala His Val Gly Pro Asn Ala His Ala Pro

His Ser Cys Gly Glu Leu Thr Ala Arg Pro Gly Gly Ala Arg Gly Ala

Gln Arg Pro His Ser Pro Leu Leu Arg Arg Ala His Ser Gln Ala Arg 135 Gly Arg Thr Trp Gly Pro Thr Phe Arg Asn Lys Ile Ile Val Tyr Ser 145 150 155 160 Phe Leu Phe Phe Leu Lys Ser Val Phe Leu Leu Arg Thr Pro Asp Val 170 165 Cys Gly Ser Glu Ala Gln Trp Ala Tyr Ser Tyr Leu Thr Trp Gln Thr 185 Trp Lys Trp Lys Leu Leu Cys Ile Thr Arg Ile Ser Arg Ala Ser Ala 205 200 195 Ser Cys Trp Pro Asp Arg Val Pro 215 210

<210> 4876

<211> 904

<212> PRT

<213> Homo sapiens

<400> 499

Met Ala Glu Ala Leu Leu Ala Cys Cys Pro Gly Asp Gln Lys Pro Gly
1 5 10 15

Ile Leu Ala Arg Leu Lys Asp Ile Lys Ala Gln Trp Glu Glu Thr Val 20 25 30

Thr Tyr Met Thr His Cys His Ser Arg Ile Glu Trp Val Trp Leu His
35 40 45

Trp Ser Glu Tyr Leu Leu Ala Arg Asp Glu Phe Tyr Arg Trp Phe Gln
50 55 60

Lys Met Met Val Thr Leu Glu Pro His 11e Glu Leu Gln Leu Gly Leu 65 70 75 80

Lys Glu Lys Gln Trp Gln Leu Ser His Ala Gln Val Leu Leu His Asn 85 90 95

Val Asp Asn Gln Ala Val Leu Leu Asp Arg Leu Leu Glu Glu Ala Ala 100 105 110

Ser Leu Phe Asn Arg Ile Gly Asp Pro Ser Val Asp Glu Asp Ala Gln 115 120 125

Lys	Arg	Met	Lys	Ala	Glu	Tyr 135	Asp	Ala	Val	Lys	Ala 140	Lys	Ala	Gln	Lys
Arø		Asn	Len	Leu	Glu		Val	Ala	Arø	Glu		Glu	Glu	Tvr	Gln
145	, (1)	пор	Bou	БСС	150	0.111	, 41		8	155		0.4	0.0	• , •	160
	Glv	Val	Asp	Glu		Gln	Leu	Trp	Leu		Ala	Val	Val	Glu	
	,		•	165				•	170	•				175	•
Val	Asn	Gly	Cys	Leu	Gly	Arg	Asn	Cys	Lys	Leu	Pro	lle	Thr	Gln	Arg
			180					185					190		
Leu	Ser	Thr	Leu	Gln	Asp	Ile	Ala	Lys	Asp	Phe	Pro	Arg	Gly	Glu	Glu
		195					200					205			
Ser	Leu	Glu	Thr	Leu	Glu	Glu	Gln	Ser	Ala	Gly	Val	He	Arg	Asn	Thr
	210					215					220				
Ser	Pro	Leu	Gly	Ala	Glu	Lys	He	Thr	Gly	Glu	Leu	Glu	Glu	Met	Arg
225					230					235					240
Lys	Val	Leu	Glu	Lys	Leu	Arg	Ala	Leu		Glu	Glu	Glu	Glu	Glu	Arg
				245					250					255	
Leu	Arg	Gly		Leu	Arg	Ser	Arg		Ala	Trp	Glu	Gln		He	Lys
0.1		0.1	260	61	,	0	0.1	265 Di			., 1		270		,
GIn	Leu		Ala	Glu	Leu	Ser	Glu	Phe	Arg	Met	vai	285	GIn	Arg	Leu
Δla	Gla	275	Glv	Lou	Gln	Pro	280 Ala	Δla	lve	Δla	Glv		Glu	Aen	Glu
мта	290	oru	Gly	Leu	OIII	295	MIG	MIA	Lys	MIG	300	1111	Oju	лэр	Oju
Leu		Ala	His	Trp	Arg		Tyr	Ser	Ala	Thr		Ala	Ala	Leu	Ala
305					310	8	- , -			315	0				320
Ser	Glu	Glu	Pro	Arg		Asp	Arg	Leu	Gln		Gln	Leu	Lys	Glu	
				325					330					335	
lle	Val	Phe	Pro	His	Asn	Leu	Lys	Pro	Leu	Ser	Asp	Ser	Val	11e	Ala
			340					345					350		
Thr	He	Gln	Glu	Tyr	Gln	Ser	Leu	Lys	Val	Lys	Ser	Ala	Arg	Leu	Arg
		355					360					365			
Asn	Ala	Ala	Ala	Val	Glu	Leu	Trp	Gln	His	Phe	Gln	Arg	Pro	Leu	Gln
	370					375					380				
Asp	Leu	Gln	Leu	Trp	Lys	Ala	Leu	Ala	Gln	Arg	Leu	Leu	Glu	Val	Thr
385			•		390					395					400
Ala	Ser	Leu	Pro		Leu	Pro	Ser	Leu		Thr	Phe	Leu	Pro		He
				405					410					415	

Glu	Ala	Ala	Leu	Met	Glu	Ser	Ser	Arg	Leu	Lys	Glu	Leu	Leu	Thr	Met
			420					425					430		
Leu	Gln	Leu	Lys	Lys	Asp	Leu	Leu	He	Gly	He	Phe	Gly	Gln	Glu	Arg
		435					440					445			
Ala	Thr	Ala	Leu	Leu	Glu	Gln	Val	Ala	Gly	Ser	Met	Arg	Asp	Arg	Лѕр
	450					455					460				
Leu	Leu	His	Asn	Ser	Leu	Leu	Gln	Arg	Lys	Ser	Lys	Leu	Gln	Ser	Leu
465					470					475					480
Leu	Ala	Gln	His	Lys	Asp	Phe	Gly	Ala	Ala	Phe	Glu	Pro	Leu	Gln	Arg
				485					490					495	
Lys	Leu	Leu	Asp	Leu	Gln	Val	Arg	Val	G1n	Ala	Glu	Lys	Gly	Leu	Gln
			500					505					510		
Arg	Asp	Leu	Pro	Gly	Lys	Gln	Ala	Gln	Leu	Ser	Arg	Leu	Gln	Gly	Leu
		515					520					525			
Gln	Glu	Glu	Gly	Leu	Asp	Leu	Gly	Ala	G1n	Met	Glu	Ala	Ala	Arg	Pro
	530					535					540				
Leu	Val	Gln	Glu	Asn	Pro	Asn	His	Gln	His	Lys	Met	Asp	Gln	Leu	Ser
545					550					555					560
Ser	Asp	Phe	Gln	Ala	Leu	Gln	Arg	Ser	Leu	Glu	Asp	Leu	Val	Asp	Arg
				565					570					575	
Çys	Arg	Gln	Ser	Val	Gln	Glu	His	Cys	Thr	Phe	Ser	His	Gln	Leu	Leu
			580					585					590		
Glu	Leu	Arg	Gln	Trp	He	Val	Val	Thr	Met	Gln	Lys	Leu	Glu	Ala	His
		595					600					605			
Arg	Gly	Glu	Ala	Gly	Pro	Gly	Asp	Ala	Glu	Ser	Gln	Glu	Ala	Glu	Phe
	610					615					620				
Glu	Arg	Leu	Val	Ala	Glu	Phe	Pro	Glu	Lys	Glu	Ala	Gln	Leu	Ser	Leu
625					630					635					640
Val	Glu	Ala	Gln	Gly	Trp	Leu	Val	Met	Glu	Lys	Ser	Ser	$\operatorname{Pro}$	Glu	Gly
				645					650					655	
Ala	Ala	Val	Val	Gln	Glu	Glu	Leu	Arg	Glu	Leu	Ala	Glu	Ser	Trp	Arg
			660					665					670		
Ala	Leu	Arg	Leu	Leu	Glu	Glu	Ser	Leu	Leu	Ser	Leu	Ile	Arg	Asn	Trp
		675					680					685			
	3	C1-	Ara	Mot	Glu	Val	Aen	Ser	G1v	lve	Lve	Met	Val	Phe	Thr

	690					695					700				
Asn	Asn	He	Pro	Lys	Ser	Gly	Phe	Leu	He	Asn	Pro	Met	Asp	Pro	Пе
705					710					715					720
Pro	Arg	His	Arg	Arg	Arg	Glu	Glu	Glu	Gly	Ser	His	Glu	Asp	Phe	Ser
				725					730					735	
Gln	Leu	Leu	Arg	Asn	Phe	G1 y	G1n	Trp	Leu	G1n	Va]	Glu	Asn	Ser	Lys
			740					745					750		
Leu	Val	Arg	He	lle	Ala	Met	Arg	Thr	Ser	Thr	Ala	Glu	Asp	Leu	Arg
		755					760					765			
Thr	Arg	Lys	Ser	Lys	Leu	Gln	Glu	Leu	Glu	Ala	Arg	Val	Pro	Glu	Gly
	770					775					780				
Gln	His	Leu	Phe	Glu	Asn	Leu	Leu	Arg	Leu	Gly	Pro	Ala	Arg	G] y	Thr
785					790					795					800
Ser	Asp	Glu	Leu	Glu	Asp	Leu	Arg	Tyr	Gln	Trp	Met	Leu	Tyr	Lys	Ser
				805					810					815	
Lys	Leu	Lys	Asp	Ser	Gly	His	Leu	Leu	Thr	Gln	Ser	Ser	Pro	Gly	Glu
•			820					825					830		
Pro	Thr	Gly	Phe	Gln	Lys	Thr	Arg	Arg	Trp	Arg	Gly	Leu	Gly	Ser	Leu
		835					840					845			
Phe	Arg	Arg	Ala	Cys	Cys	Val	Ala	Leu	Pro	Leu	Gln	Leu	Leu	Leu	Leu
	850					855					860				
Leu	Phe	Leu	Leu	Leu	Leu	Phe	Leu	Leu	Pro	Ile	Arg	Glu	Glu	Asp	Arg
865					870					875					880
Ser	Cys	Thr	Leu	Ala	Asn	Asn	Phe	Ala	Arg	Ser	Phe	Thr	Leu	Met	Leu
				885					890					895	
Arg	Tyr	Asn	Gly	Pro	Pro	Pro	Thr								
			900												

<211> 164

<212> PRT

<213> Homo sapiens

<400> 500

Met Ser Glu Pro Ser Pro Cys Pro Pro Glu Gly Val Gln Leu Cys Gly

5 10 15 Pro Ala Leu Tyr Arg Leu Val Pro Cys Val Cys Ala Val Ser Val Cys 25 Leu Leu Pro Gln Val Leu Lys Lys Tyr Pro Arg Leu Trp Cys Met Thr 40 Lys Pro Pro Ser Arg Arg Pro Lys Leu Tyr 11e Val Asn Leu Gln Trp 55 Thr Pro Lys Asp Asp Trp Ala Ala Leu Lys Leu His Gly Lys Cys Asp 70 75 Asp Val Met Arg Leu Leu Met Ala Glu Leu Gly Leu Glu Ile Pro Ala 85 90 Tyr Ser Arg Trp Gln Asp Pro 11e Phe Ser Leu Ala Thr Pro Leu Arg 100 105 Ala Gly Glu Glu Gly Ser His Ser Arg Lys Ser Leu Cys Arg Ser Arg 115 120 125 Glu Glu Ala Pro Pro Gly Asp Arg Gly Ala Pro Leu Ser Ser Ala Pro 135 140 Ile Leu Gly Gly Trp Phe Gly Arg Gly Cys Thr Lys Arg Thr Lys Arg 150 155 160 Lys Lys Val Thr

<210> 4878

<211> 477

<212> PRT

<213> Homo sapiens

<400> 501

Met Lys Leu Ile Arg Ser Ser Ser Cys His Val Gly Ser Ala Arg Lys

1 5 10 15

Leu His His Trp Arg Ala Gly Gln Thr Glu Pro Gly Trp Ala Gly Thr
20 25 30

Arg His Asp Ser Pro Val Pro Leu Pro Pro Arg Gly Gly Leu Ala Ala 35 40 45

Asp Asn Val Leu Leu Ser Ser Asp Gly Ser His Ala Ala Leu Cys Asp

	50					55					60				
Phe	Gly	His	Ala	Val	Cys	Leu	Gln	Pro	Лsp	Gly	Leu	Gly	Lys	Ser	Leu
65					70					75					80
Leu	Thr	G] y	Asp	Tyr	He	Pro	Gly	Thr	Glu	Thr	His	Met	Ala	Pro	Glu
				85					90					95	
Val	Val	Leu	Gly	Arg	Ser	Cys	Asp	Ala	Lys	Val	Asp	Val	Trp	Ser	Ser
			100					105					110		
Cys	Cys	Met	Met	Leu	His	Met	Leu	Asn	Gly	Cys	His	Pro	Trp	Thr	Gln
		115					120					125			
Phe	Phe	Arg	Gly	Pro	Leu	Cys	Leu	Lys	He	Ala	Ser	Glu	Pro	Pro	Pro
	130					135					140				
Val	Arg	Glu	He	Pro	Pro	Ser	Cys	Ala	Pro	Leu	Thr	Ala	Gln	Ala	He
145					150					155					160
Gln	Glu	Gly	Leu	Arg	Lys	Glu	Pro	He	His	Arg	Val	Ser	Ala	Ala	Glu
				165					170					175	
Leu	G1 y	Gly	Lys	Val	Asn	Arg	Ala		Gln	Gln	Val	G1 y	Gly	Leu	Lys
			180					185					190		
Ser	Pro		Arg	Gly	Glu	Tyr		Glu	Pro	Arg	His		Pro	Pro	Asn
		195					200					205			
GIn		Asn	Tyr	His	GIn		Leu	His	Ala	GIn		Arg	Glu	Leu	Ser
D	210	. 1	D	6.1	D	215	Б		6.1	6.1	220	TD1	6.1		. 1
	Arg	Ala	Pro	GIy		Arg	Pro	Ala	Glu		lhr	Ihr	Gly	Arg	
225 D	1	1	C I	D.	230 D		15.	1)	C.1	235 D	ь	C1	р	Α.	240
Pro	Lys	Leu	Gln	245	rro	Leu	Pro	Pro		Pro	Pro	GIU	rro		Lys
Son	Dro	Dro	Lou		Lou	Can	lue	Clu	250	Can	Cly	Mot	Tan	255	Dno
361	110	110	Leu 260	1111	Leu	261	LyS	265	Giu	261	Oly	мет	270		F10
Leu	Pro	Leu	Ser	Ser	يرم ا	Glu	Pro		Pro	Ala	Ara	Aen			Ser
i,cu	110	275	.J.C.1	501	Leu	O1 u	280	Mid	110	MIG	m g	285	110	50,1	501
Pro	Glu		Lys	Ala	Thr	Val		Glu	Gln	Glu	l eu		Gln	Len	Glu
	290	5	127.0	7176.	,	295	110	014	0111	Olu	300	0111	0111	Вос	0.10
He		Leu	Phe	Leu	Asn		Leu	Ser	Gln	Pro		Ser	Leu	G1u	Glu
305					310					315					320
	Glu	Gln	He	Leu		Cys	Leu	Ser	He		Ser	Leu	Ser	Leu	
				325		•			330	•				335	
Asp	Asp	Ser	Glu	Lvs	Asn	Pro	Ser	Lys		Ser	Gln	Ser	Ser	Arg	Asn

			340					345					350		
Thr	Leu	Ser	Ser	Gly	Val	His	Ser	Trp	Ser	Ser	Gln	Ala	Glu	Ala	Arg
		355					360					365			
Ser	Ser	Ser	Trp	Asn	Met	Va]	Leu	Ala	Arg	Gly	Arg	Pro	Thr	Asp	Thr
	370					375					380				
Pro	Ser	Tyr	Phe	Asn	Gly	Va]	Lys	Val	Gln	He	Gln	Ser	Leu	Asn	Gly
385					390					395					400
Glu	His	Leu	His	lle	Arg	Glu	Phe	His	Arg	Val	Lys	Val	Gly	Asp	lle
				405					410					415	
Ala	Thr	Gly	He	Ser	Ser	Gln	He	Pro	Ala	Ala	Ala	Phe	Ser	Leu	Val
			420					425					430		
Thr	Lys	Asp	Gly	Gln	Pro	Val	Arg	Tyr	Asp	Met	Glu	Val	Pro	Asp	Ser
		435					440					445			
Gly	Пe	Asp	Leu	Gln	Cys	Thr	Leu	Ala	Pro	Asp	Gly	Ser	Phe	Ala	Trp
	450					455					460				
Ser	Trp	Arg	Val	Lys	His	Gly	Gln	Leu	Glu	Asn	Arg	Pro			
465					470					475					

<211> 486

<212> PRT

<213> Homo sapiens

<400> 502

 Met
 Gly
 Ser
 Glu
 Lys
 Asp
 Ser
 Glu
 Ser
 Pro
 Arg
 Ser
 Thr
 Ser
 Leu
 His

 1
 5
 5
 10
 10
 10
 15
 15

 Ala
 Ala
 Ala
 Pro
 Asp
 Pro
 Lys
 Cys
 Arg
 Ser
 Gly
 Gly
 Arg
 His
 Tyr

 Leu
 Arg
 Leu
 Glu
 11e
 Ser
 Glu
 Ser
 Arg
 Val
 Pro
 Ile
 Ser
 Cys
 Pro
 Glu

 Cys
 Ser
 Glu
 Arg
 Leu
 Asn
 Pro
 Ilis
 Asp
 Ile
 Arg
 Leu
 Leu
 Ala
 Asp

 Cys
 Ser
 Glu
 Arg
 Leu
 Asn
 Pro
 Ilis
 Asp
 Ile
 Arg
 Leu
 Leu
 Ala
 Asp

 Cys
 Ser
 Glu

Pro Pro Leu Met His Lys Tyr Glu Glu Phe Met Leu Arg Arg Tyr Leu

				85					90					95	
Лlа	Ser	Asp	Pro	Asp	Cys	Arg	Trp	Cys	Pro	Ala	Pro	Asp	Cys	Gly	Tyr
			100					105					110		
Ala	Val	lle	Ala	Tyr	Gly	Cys	Ala	Ser	Cys	Pro	Lys	Leu	Thr	Cys	Glu
		115					120					125			
Arg	Glu	Gly	Cys	Gln	Thr	Glu	Phe	Cys	Tyr	His	Cys	Lys	Gln	lle	Trp
	130					135					140				
His	Pro	Asn	Gln	Thr	Cys	Asp	Met	Ala	Arg	Gln	Gln	Arg	Ala	Gln	Thr
145					150					155					160
Leu	Arg	Val	Arg	Thr	Lys	His	Thr	Ser	Gly	Leu	Ser	Tyr	Gly	Gln	G1u
				165					170					175	
Ser	Gly	Pro	Asp	Asp	lle	Lys	Pro	Cys	Pro	Arg	Cys	Ser	Ala	Tyr	He
			180					185					190		
He	Lys	Met	Asn	Asp	Gly	Ser	Cys	Asn	His	Met	Thr	Cys	Ala	Val	Cys
		195					200					205			
Gly		Glu	Phe	Cys	Trp	Leu	Cys	Met	Lys	Glu		Ser	Asp	Leu	His
	210					215					220				
	Leu	Ser	Pro	Ser		Cys	Thr	Phe	Trp		Lys	Lys	Pro	Trp	
225					230					235					240
Arg	Lys	Lys	Lys		Leu	Trp	Gln	Leu		Thr	Leu	lle	Gly		Pro
			_	245					250					255	
Val	Gly	He		Leu	He	Ala	Gly		Ala	He	Pro	Ala		Val	He
6.1	3.1	D	260	т	\; 1	61		265	7.7	11.	C	4	270 T	C1	C1
Ыÿ	11e		vai	lyr	Val	Gly		Lys	116	HTS	Ser		lyr	Glu	61 y
A	1	275	C	1	115 -	1	280	Δ	1	A 1	11.	285	C1	C1	Val
Arg	290	1111	261	LyS	птѕ	Lys 295	AIg	ASII	Leu	ATA	300	1111	OTy	GTY	vai
Thr		Sor	Val	110	Δla	Ser	Pro	Val	Tlo	Ala		Val	Sor	Val	Glv
305	1.eu	361	101	116	310	361	110	va1	116	315	ила	vai	561	vai	320
	Glv	Val	Pro	He		Leu	Ala	Tyr	Val		Glv	Val	Val	Pro	
110	01,	, (1)	110	325	MC. C	LCu	MIG	1,7,1	330	1 2 1	Ory	, (,)	• • • • •	335	
Ser	Leu	Cvs	Arg		Glv	Gly	Cvs	Glv		Ser	Thr	Ala	Asn		Lvs
	1300		340			017	O,O	345					350		13, 0
G1 v	Val	Lvs		Glu	Phe	Asp	Glu		Asn	Glv	Pro	He		Val	Ala
,		355				I-	360		[5	- • 3		365			
Aen	Λla		Arg	Ala	ിബ	Lve		Pro	Sor	116	GLv		Sar	Sor	Ha

Glu Gly Leu Thr Ser Val Leu Ser Thr Ser Gly Ser Pro Thr Asp Gly Leu Ser Val Met Gln Gly Pro Tyr Ser Glu Thr Ala Ser Phe Ala Ala Leu Ser Gly Gly Thr Leu Ser Gly Gly He Leu Ser Ser Gly Lys Gly Lys Tyr Ser Arg Leu Glu Val Gln Ala Asp Val Gln Lys Glu Ile Phe Pro Lys Asp Thr Ala Ser Leu Gly Ala Ile Ser Asp Asn Ala Ser Thr Arg Ala Met Ala Gly Ser Ile Ile Ser Ser Tyr Asn Pro Gln Asp Arg Phe Ser Met Ile His Ala 

<210> 4880

<211> 492

<212> PRT

<213> Homo sapiens

<400> 503

Met Ala Met Ala Leu Pro Met Pro Gly Pro Gln Glu Ala Val Val Phe Glu Asp Val Ala Val Tyr Phe Thr Arg lle Glu Trp Ser Cys Leu Ala Pro Asp Gln Gln Ala Leu Tyr Arg Asp Val Met Leu Glu Asn Tyr Gly Asn Leu Ala Ser Leu Gly Phe Leu Val Ala Lys Pro Ala Leu Ile Ser Leu Leu Glu Gln Gly Glu Glu Pro Gly Ala Leu He Leu Gln Val Ala Glu Gln Ser Val Ala Lys Ala Ser Leu Cys Thr Asp Ser Arg Met Glu

Ala Gly 11e Met Glu Ser Pro Leu Gln Arg Lys Leu Ser Arg Gln Ala

			100					105					110		
Gly	Leu	Pro	G1y	Thr	Val	Trp	Gly	Cys	Leu	Pro	Trp	Gly	His	Pro	Val
		115					120					125			
Gly	Gly	His	Pro	Ala	Pro	Pro	His	Pro	His	Gly	Gly	Pro	Glu	Asp	G1y
	130					135					140				
Ser	Asp	Lys	Pro	Thr	His	Pro	Arg	Ala	Arg	Glu	His	Ser	Ala	Ser	Pro
145					150					155					160
Arg	Val	Leu	Gln	Glu	Asp	Leu	Gly	Arg	Pro	Val	Gly	Ser	Ser	Ala	Pro
				165					170					175	
Arg	Tyr	Arg	Cys	Val	Cys	Gly	Lys	Ala	Phe	Arg	Tyr	Asn	Ser	Leu	Leu
			180					185					190		
Leu	Arg	His	Gln	He	Val	His	Thr	Gly	Ala	Lys	Pro	Phe	Gln	Cys	Thr
		195					200					205			
G1u	Cys	G1 y	Lys	Ala	Phe	Lys	Gln	Ser	Ser	lle	Leu	Leu	Arg	His	Gln
	210					215					220				
Leu	Ile	His	Thr	Glu	Glu	Lys	Pro	Phe	Gln	Cys	Gly	Glu	Cys	Gly	Lys
225					230					235					240
Ala	Phe	Arg	Gln	Ser	Thr	Gln	Leu	Ala	Ala	His	His	Arg	Val	His	Thr
				245					250					255	
Arg	Glu	Arg	Pro	Tyr	Ala	Cys	Gly	Glu	Cys	Gly	Lys	Λla	Phe	Ser	Arg
			260					265					270		
Ser	Ser	Arg	Leu	Leu	Gln	His	Gln	Lys	Phe	His	Thr	Gly	Glu	Lys	Pro
		275					280					285			
Phe	Ala	Cys	Thr	Glu	Cys	Gly	Lys	Ala	Phe	Cys	Arg	Arg	Phe	Thr	Leu
	290					295					300				
Asn	Glu	His	Gly	Arg	He	His	Ser	Gly	Glu	Arg	Pro	Tyr	Arg	Cys	Leu
305					310					315					320
Arg	Cys	Gly	Gln	Arg	Phe	He	Arg	Gly	Ser	Ser	Leu	Leu	Lys	His	His
				325					330					335	
Arg	Leu	His	Ala	Gln	Glu	Gly	Ala	Gln	Asp	G1 y	Gly	Ala	Gly	Gln	G] y
			340					345					350		
Ala	Leu	Leu	Gly	Ala	Ala	GIn	Arg	Pro	G1n	Ala	Gly	Asp	Pro	Pro	His
		355					360					365			
Glu	-	Pro	Val	Cys	Gly	Arg	Pro	Phe	Arg	His		Ser	Leu	Leu	Leu
	370					375					380				
Leu	His	Leu	Arg	Leu	His	Thr	Gly	Glu	Lys	Pro	Phe	Glu	Cys	Ala	Glu

390 395 400 385 Cys Gly Lys Ala Phe Gly Arg Lys Ser Asn Leu Thr Leu His Gln Lys 410 Ile His Thr Lys Glu Lys Pro Phe Ala Cys Thr Glu Cys Gly Lys Ala 420 425 430 Phe Arg Arg Ser Tyr Thr Leu Asn Glu His Tyr Arg Leu His Ser Gly 440 445 Glu Arg Pro Tyr Arg Cys Arg Ala Cys Gly Arg Ala Cys Ser Arg Leu 450 455 460 Ser Thr Leu Ile Gln His Gln Lys Val His Gly Arg Glu Pro Gly Glu 470 475 480 Asp Thr Glu Gly Arg Arg Ala Pro Cys Trp Ala Ser 485 490

<210> 4881

<211> 232

<212> PRT

<213> Homo sapiens

<400> 504

Met Ile Arg Lys Val Lys Val Glu Asp Glu Asp Gln Glu Ala Glu Glu
1 5 10 15

Glu Val Glu Trp Pro Gln His Leu Ser Leu Leu Pro Ser Pro Phe Pro 20 25 30

Ala Pro Asp Leu Gly His Leu Ala Ala Ala Tyr Lys Leu Glu Pro Gly
35 40 45

Ala Pro Gly Ala Leu Ser Gly Leu Ala Leu Ser Gly Trp Gly Pro Met 50 55 60

Pro Glu Lys Pro Tyr Gly Cys Gly Glu Cys Glu Arg Arg Phe Arg Asp
65 70 75 80

Gln Leu Thr Leu Arg Leu His Gln Arg Leu His Arg Gly Glu Gly Pro 85 90 95

Cys Ala Cys Pro Ser Leu Val Arg Ser Pro Arg Gly Gly Ala Ala Pro 100 105 110 Ala Leu Leu Ser Leu Val Leu Thr Arg Thr Leu Ser Cys Pro Gln 120 Phe Arg Glu Ala Arg Ala Met Arg Pro Pro Gly Val Ser Lys Ala Thr 135 140 Trp Ala Ala Ala Arg Arg Phe Gly Arg Arg Gly Thr Pro Val Ser Phe 155 145 150 Pro Gln Cys Leu Arg Pro His Ser Ile Pro Ser Ser Asp Leu Leu Gly 165 170 Gln Arg Leu Ser Glu Pro Leu Leu Gly Thr Ala Glu Leu Lys Phe Leu 190 180 185 Glu Gly Ser His Pro Gly Ala Pro Leu Glu Ser Arg Tyr Phe Pro Asp 200 205 Pro Ala Arg Pro Gln Pro Gly Gln Glu Arg Val Val Ile Tyr Val Leu 210 215 220 Lys Val Ser Leu Lys Leu Lys Ser 225 230

<210> 4882

<211> 158

<212> PRT

<213> Homo sapiens

<400> 505

Met Gly Arg Ser Pro Arg Lys 11e Asp Gln Phe Cys Asn Ser Ser Asn 1 5 10 15 Met Val His Gly Ser Val Thr Phe Arg Asp Val Ala Ile Asp Phe Ser 25 20 Gln Glu Glu Trp Glu Cys Leu Gln Pro Asp Gln Arg Thr Leu Tyr Arg 35 40 45 Asp Val Met Leu Glu Asn Tyr Ser His Leu Ile Ser Leu Gly Ser Ser 55 lle Ser Lys Pro Asp Val lle Thr Leu Leu Glu Gln Glu Lys Glu Pro 75 Trp Met Val Val Arg Lys Glu Thr Ser Arg Arg Tyr Pro Asp Leu Glu

85 90 95

 Leu Lys
 Tyr
 Gly
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 Glu
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 Val
 Ser
 Pro
 Glu
 Asn
 Asp
 Thr
 Ser
 Glu

 Val
 Asn
 Leu
 Pro
 Lys
 Gln
 11e
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<210> 4883

<211> 296

<212> PRT

<213> Homo sapiens

<400> 506

Met Ala Gln Arg Val Lys Phe Pro Thr Asp Thr Leu Gln Glu Leu Leu
1 5 10 15

Asp Val His Ala Ala Cys Glu Arg Glu Ala Ile Ala Ile Phe Met Glu 20 25 30

His Ser Phe Lys Asp Glu Asn Gln Glu Phe Gln Lys Lys Phe Met Glu 35 40 45

Thr Thr Met Asn Lys Lys Gly Asp Phe Leu Leu Gln Asn Glu Glu Ser 50 55 60

Ser Val Gln Tyr Cys Gln Ala Lys Leu Asn Glu Leu Ser Lys Gly Leu 65 70 75 80

Met Glu Ser 11e Ser Ala Gly Ser Phe Ser Val Pro Gly Gly His Lys 85 90 95

Leu Tyr Met Glu Thr Lys Glu Arg Ile Glu Gln Asp Tyr Trp Gln Val 100 105 110

Pro Arg Lys Gly Val Lys Ala Lys Glu Val Phe Gln Arg Phe Leu Glu 115 120 125

Ser Gln Met Val lle Glu Glu Ser Ile Leu Gln Ser Asp Lys Ala Leu 130 135 140

Thr Asp Arg Glu Lys Ala Val Ala Val Asp Arg Ala Lys Lys Glu Ala 145 150 155 160

Ala	Glu	Lys	Glu	Gln	Glu	Leu	Leu	Lys	Gln	Lys	Leu	Gln	Glu	Gln	Gln
				165					170					175	
Gln	Gln	Met	Glu	Ala	Gln	Val	Lys	Ser	Arg	Lys	Glu	Asn	Ile	Ala	Gln
			180					185					190		
Leu	Lys	Glu	Lys	Leu	Gln	Met	Glu	Arg	Glu	His	Leu	Leu	Arg	Glu	G1n
		195					200					205			
He	Met	Met	Leu	Glu	His	Thr	Gln	Lys	Val	Gln	Asn	Asp	Trp	Leu	His
	210					215					220				
Glu	Gly	Phe	Lys	Lys	Lys	Tyr	Glu	Glu	Met	Asn	Ala	Glu	He	Ser	Gln
225					230					235					240
Phe	Lys	Arg	Met	He	Asp	Thr	Thr	Lys	Asn	Asp	Asp	Thr	Pro	Trp	Ile
				245					250					255	
Ala	Arg	Thr	Leu	Asp	Asn	Leu	Ala	Asp	Glu	Leu	Thr	Ala	He	Leu	Ser
			260					265					270		
Ala	Pro	Ala	Lys	Leu	lle	Gly	His	Gly	Val	Lys	Gly	Val	Ser	Ser	Leu
		275					280					285			
Phe	Lys	Lys	His	Lys	Leu	Pro	Phe								
	290					295									

<211> 153

<212> PRT

<213> Homo sapiens

<400> 507

65

 Met
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 Pro
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<210> 4885

<211> 562

<212> PRT

<213> Homo sapiens

<400> 508

Met Leu Asp Thr Ile Ala Arg Ala Leu Gln Asp Leu Gly Arg Gln Val 1 5 10 15 Leu Pro Thr Leu Pro Ser Leu Ser Gln Glu Glu Val Ser Ile Ile Trp 25 Gly Asn Val Ser Glu Phe Val Arg Arg Gln Leu Thr Leu His Lys Gly 35 40 45 Val Gln 11e Pro Ala Phe Gly Thr Phe Thr Phe I1e Arg Gln Lys Leu 50 55 60 Glu Val Gly Asn Asn Lys Phe Ile Leu Ile Gln Arg Pro Val Phe Ile 70 75 Met Val Gly Lys Leu Val Gln lle His Gly Leu Lys Gln Asn Lys Arg 90 85 95 Pro Gly Thr Val Asp Ser Val Leu Ser Ser Arg Glu Ala Leu Arg Lys 105 Trp Pro Ser Ser Val Leu Ala Phe Pro Arg Ile Glu Leu Lys Glu Met 115 120 125

Glu Asn Lys Leu Pro Met Glu Thr Leu Val Glu Glu Cys Gly Glu Asn

	130					135					140				
Arg	Glu	Arg	Lys	Cys	Lys	Leu	Lys	Asp	Gln	Ser	Asp	Lys	Glu	Glu	Gly
145					150					155					160
Thr	Arg	Asp	11e	Ser	Ser	Pro	Lys	Arg	Leu	Arg	Asp	Arg	Gln	Ala	Leu
				165					170					175	
Phe	Pro	Ala	Lys	Val	Thr	Asn	Val	Ser	Leu	Leu	Glu	Lys	Phe	Glu	Arg
			180					185					190		
Ser	Glu	Ser	Gly	Gly	Lys	He	Met	Thr	Pro	Glu	Ser	Leu	Ser	Tyr	Pro
		195					200					205			
Ser	Cys	Leu	Lys	His	Asp	Ser	Glu	Met	Lys	Pro	Gln	Thr	Ser	Pro	Ala
	210					215					220				
Cys	Gln	Asp	His	Asn	Lys	Ala	Gly	Gln	Glu	Met	Cys	Tyr	Val	Cys	Leu
225					230					235					240
Gln	Arg	Ala	Gln	Arg	Asn	Ser	Leu	Leu	Tyr	Tyr	Ser	Glu	Glu	Arg	Arg
				245					250					255	
Arg	Glu	He	Glu	Asp	Glu	Arg	Leu	lle	Gln	Gln	Tyr	Gln	Met	Leu	Lys
			260					265					270		
Asp	Gln	Glu	Ala	Leu	Phe	Arg	His	Gln	Met	Lys	Ser	Leu	Ala	Thr	Arg
		275					280					285			
Glu	Gln	Asn	Gln	Lys	Asn	Ala	Ala	Tyr	Asn	Leu	Gly	Val	Ala	Glu	Ala
	290					295					300				
lle	Arg	Asn	His	Lys	Asn	Glu	Lys	Pro	Glu	Phe	Tyr	Lys	Ser	Phe	Leu
305					310					315					320
Phe	Asp	Lys	Arg		Leu	Ser	Pro	Ala	Leu	Asn	Ala	Leu	Lys		Glu
				325					330					335	
Glu	Tyr	Ser	Arg	Ser	Leu	Leu	Lys	Gln	Met	Asp	Asn	Arg	Gln	Glu	Asn
			340			_		345					350		
Glu	He		GIn	Arg	GIn	Tyr		Glu	Leu	Met	Asp		Leu	Glu	GIn
	0.1	355	n:1	0.1	0.1	,	360		61			365	m		,
Val	Gln	Leu	lhr	Glu	Glu		Ala	Ala	Gin	Arg		Lys	Phe	Leu	Lys
	370	<b>M</b> 4	61	C1	T1	375	C -	т	1	Α	380		4	41.	C1.
	Lys	мет	GIU	61 <b>u</b>		GIN	Cys	ıyr	Lys		Ala	Leu	Asp	Ala	
385	1	Λ	1	D	390	A	1	D	D	395	C1	D	Δ	C	400
116	Lys	ASII	Lys	405	ser	arg	Leu	110	410	rne	oju	1.10	аѕр		ser
610	Pro	He	Pho		Lvc	Acr	Glu	Glv		Lov	Mot	Val	Glu	415	615

425 430 Lys Arg Glu Gln Asn Tyr Met Lys His Gln Leu Glu Ala Ala Asn 440 445 His Lys Arg Lys Ala Ile Leu His Gln Leu Val Asp Gln Arg Arg Asp 450 455 460 Leu Gln Met Leu Gln Arg Thr Gln Arg Glu His Leu Ala Asp Arg Thr 470 475 480 Ala Glu Leu Glu Arg Val Asn Arg Val Asn Gln Cys Leu Gln Glu Asp 485 490 Trp Glu Arg Ser Ala Ala Met Lys Lys Gln Arg Asp Leu Glu Asp Lys 500 505 510 Ala Phe Glu Arg Ala Ser Asp Lys Leu Phe Leu Leu Asp Gln Cys Glu 520 Lys Tyr Arg Arg Cys Lys Gln Cys Gln Arg Arg Thr Ser Asn Val Gly 530 535 540 Glu Ser Asn Leu Trp Pro Leu Asn Lys Phe Leu Pro Gly Ser Arg Leu 550 555 560 545 Leu Val

<210> 4886

<211> 385

<212> PRT

<213> Homo sapiens

<400> 509

Met Pro Lys Lys Leu Leu Leu Pro Pro Pro Ser Ala Ser Ser Ala
1 5 10 15

Phe Arg Val Pro Arg Ala Arg Pro Val Pro Pro Pro Ala Met Asn Ala 20 25 30

Ala Arg Thr Gly Tyr Arg Val Phe Ser Ala Asn Ser Thr Ala Ala Cys 35 40 45

Thr Glu Leu Ala Lys Arg lle Thr Glu Arg Leu Gly Ala Glu Leu Gly 50 55 60

Lys Ser Val Val Tyr Gln Glu Thr Asn Gly Glu Thr Arg Val Glu lle

65					70					75					80
Lys	Glu	Ser	Val	Arg	Gly	Gln	Asp	Пe	Phe	Пe	He	Gln	Thr	lle	Pro
				85					90					95	
Arg	Asp	Val	Asn	Thr	Ala	Val	Met	Glu	Leu	Leu	He	Met	Ala	Tyr	Ala
			100					105					110		
Leu	Lys	Thr	Ala	Cys	Λla	Arg	Asn	He	He	Gly	Val	Пe	Pro	Tyr	Phe
		115					120					125			
Pro	Tyr	Ser	Lys	Gln	Ser	Lys	Met	Arg	Lys	Arg	Gly	Ser	lle	Val	Cys
	130					135					140				
Lys	Leu	Leu	Ala	Ser	Met	Leu	Ala	Lys	Ala	Gly	Leu	Thr	His	Ile	Ile
145					150					155					160
Thr	Met	Asp	Leu	His	Gln	Lys	Glu	He	Gln	Gly	Phe	Phe	Ser	Phe	Pro
				165					170					175	
Val	Asp	Asn	Leu	Arg	Ala	Ser	Pro	Phe	Leu	Leu	Gln	Tyr	lle	G1n	Glu
			180					185					190		
Glu	He	Pro	Asn	Tyr	Arg	Asn	Ala	Val	lle	Val	Ala	Lys	Ser	Pro	Asp
		195					200					205			
Ala	Ala	Lys	Arg	Ala	Gln	Ser	Tyr	Ala	Glu	Arg	Leu	Arg	Leu	Gly	Leu
	210					215					220				
Ala	Val	He	His	Gly	Glu	Ala	Gln	Cys	Thr	Glu	Leu	Asp	Met	Asp	Asp
225					230					235					240
Gly	Arg	His	Ser	Pro	Pro	Met	Val	Lys	Asn	Ala	Thr	Val	His	Pro	Gly
				245					250					255	
Leu	Glu	Leu		Leu	Met	Met	Ala		Glu	Lys	Pro	Pro		Thr	Val
			260					265					270		
Val	Gly		Val	Gly	Gly	Arg		Ala	lle	He	Val		Tyr	lle	He
		275	6.1	~	**1		280				~ ~	285		0.1	
Asp		Val	Glu	Ser	Phe	Val	Ala	Ala	Ala	Glu		Leu	Lys	Glu	Arg
<i>a</i> 1	290	æ	,	3.1	42	295		4.7	<b>7</b> 71	,,,	300				
-	Ala	lyr	Lys	He		Va]	Met	Ala	Ihr		Gly	11e	Leu	Ser	
305	a 1	D	Α	1	310	C1	C1	C .	C	315	4	C1	V 1	17 1	320
610	ATA	PFO	Arg		116	Glu	Glu	26L		val	Asp	Glu	val		vai
TL	A ~ · ·	Th	Vel	325	u	C1	Ve 1	C1	330	ندم ا	C1	Cur	D <sub>1</sub>	335	11.
ınr	ASH	ınr		rro	п15	Glu	vai	345	Lys	Leu	01 N	Cys		Lys	116
Luc	The	Val	340 Asp	11.	Sam	Low	11.		San	61	A1 a	11.	350	A 22 ~	11.
LyS	1111	V C1.1	ush	116,	Sel	Leu	116	Leu	OGT.	oru	MIG	116	vi 8	vi 8	116

360 365 355 His Asn Gly Glu Ser Met Ala Tyr Leu Phe Arg Asn lle Thr Val Asp 375 380 Asp 385 <210> 4887 <211> 621 <212> PRT <213> Homo sapiens <400> 510 Met Asp Leu Leu Thr Arg Glu Asn Val Ala Leu Lys Val Glu Ser Ala 1 Gln Gln Pro Lys Gln Val Leu Lys Met Glu Val Ala Val Leu Lys Lys 25 Leu Gln Gly Lys Asp His Val Cys Arg Phe Ile Gly Cys Gly Arg Asn 40 45 Glu Lys Phe Asn Tyr Val Val Met Gln Leu Gln Gly Arg Asn Leu Ala 50 60 55 Asp Leu Arg Arg Ser Gln Pro Arg Gly Thr Phe Thr Leu Ser Thr Thr 70 75 Leu Arg Leu Gly Lys Gln 11e Leu Glu Ser 11e Glu Ala 11e His Ser 90 Val Gly Phe Leu His Arg Asp Ile Lys Pro Ser Asn Phe Ala Met Gly 100 105 Arg Leu Pro Ser Thr Tyr Arg Lys Cys Tyr Met Leu Asp Phe Gly Leu 120 125 Ala Arg Gln Tyr Thr Asn Thr Thr Gly Asp Val Arg Pro Pro Arg Asn 130 135 140 Val Ala Gly Phe Arg Gly Thr Val Arg Tyr Ala Ser Val Asn Ala His 150 155 Lys Asn Arg Glu Met Gly Arg His Asp Asp Leu Trp Ser Leu Phe Tyr 165 170

Met Leu Val Glu Phe Ala Val Gly Gln Leu Pro Trp Arg Lys Ile Lys

			180					185					190		
Asp	Lys	Glu	Gln	Val	Gly	Met	He	Lys	Glu	Lys	Tyr	Glu	His	Arg	Met
		195					200					205			
Leu	Leu	Lys	His	Met	Pro	Ser	Glu	Phe	His	Leu	Phe	Leu	Asp	His	He
	210					215					220				
Ala	Ser	Leu	Asp	Tyr	Phe	Thr	Lys	Pro	Asp	Tyr	Gln	Leu	He	Met	Ser
225					230					235					240
Val	Phe	Glu	Asn	Ser	Met	Lys	Glu	Arg	Gly	lle	Ala	Glu	Asn	Glu	Ala
				245					250					255	
Phe	Asp	Trp	Glu	Lys	Ala	Gly	Thr	Asp	Ala	Leu	Leu	Ser	Thr	Ser	Thr
			260					265					270		
Ser	Thr	Pro	Pro	Gln	Gln	Asn	Thr	Arg	Gln	Thr	Ala	Ala	Met	Phe	Gly
		275					280					285			
Val	Val	Asn	Val	Thr	Pro	Val	Pro	Gly	Asp	Leu	Leu	Arg	Glu	Asn	Thr
	290					295					300				
Glu	Asp	Val	Leu	Gln	Gly	Glu	His	Leu	Ser	Asp	Gln	Glu	Asn	Ala	Pro
305					310					315					320
Pro	Ile	Leu	Pro	Gly	Arg	Pro	Ser	Glu	Gly	Leu	Gly	Pro	Ser	Pro	His
				325					330					335	
Leu	Val	Pro	His	Pro	Gly	G1 y	Pro	Glu	Ala	Glu	Val	Trp	Glu	Gly	Thr
			340					345					350		
Asp	Val	Asn	Arg	Asn	Lys	Leu	Arg	He	Asn	He	Gly	Lys	Ser	Pro	Cys
		355					360					365			
Val	Glu	Glu	Glu	Gln	Ser	Arg	G] y	Met	Gly	Val	Pro	Ser	Ser	Pro	Val
	370					375					380				
Arg	Ala	Pro	Pro	Asp	Ser	Pro	Thr	Thr	Pro	Va]	Arg	Ser	Leu	Arg	Tyr
385					390					395					400
Arg	Arg	Val	Asn	Ser	Pro	Glu	Ser	G] u	Arg	Leu	Ser	Thr	Ala	Asp	Gly
				405					410					415	
Arg	Val	Glu	Leu	Pro	Głu	Arg	Arg	Ser	Arg	Met	Asp	Leu	Pro	Gly	Ser
			420					425					430		
Pro	Ser	Arg	Gln	Ala	Cys	Ser	Ser	Gln	Pro	Ala	Gln	Met	Leu	Ser	Val
		435					440					445			
Asp	Thr	Gly	His	Ala	Asp	Arg	Gln	Ala	Ser	Gly	Arg	Met	Asp	Val	Ser
	450					455					460				

Ala Ser Val Glu Gln Glu Ala Leu Ser Asn Ala Phe Arg Ser Val Pro Leu Ala Glu Glu Glu Asp Phe Asp Ser Lvs Glu Trp Val lle Ile Asp Lys Glu Thr Glu Leu Lys Asp Phe Pro Pro Gly Ala Glu Pro Ser Thr Ser Gly Thr Thr Asp Glu Glu Pro Glu Glu Leu Arg Pro Leu Pro Glu Glu Gly Glu Glu Arg Arg Leu Gly Ala Glu Pro Phe Pro Leu Thr Pro Ala Leu Gly Thr Pro Pro Ser Thr Glu Arg Val Gly Pro His Arg Pro Thr Glu Thr Val Gly Gly Gly Gln Thr Leu Gly Ala Leu Pro Pro Ala Val Gln Pro Pro Ala Thr Thr Gly Val Leu Arg Val Leu Leu Leu His Ala Gly Asp Gly Ala Leu Pro Ser Pro Arg Arg Arg Leu Leu Gly Leu Leu Arg Phe Pro His Ser Ala Gln Pro Leu Gly 

<210> 4888

<211> 267

<212> PRT

<213> Homo sapiens

<400> 511

Met Phe Arg Arg Lys Ala Glu Gly Leu Asp Leu Ala Ser Cys Val Arg Ser Leu Asp Val Leu Val Leu Asp Glu Ala Asp Arg Leu Leu Asp Met Gly Phe Glu Ala Ser Ile Asn Thr Ile Leu Glu Phe Leu Pro Lys Gln Arg Arg Thr Gly Leu Phe Ser Ala Thr Gln Thr Gln Glu Val Glu Asn 

Leu Val Arg Ala Gly Leu Arg Asn Pro Val Arg Val Ser Val Lys Glu Lys Gly Val Ala Ala Ser Ser Ala Gln Lys Thr Pro Ser Arg Leu Glu Asn Tyr Tyr Met Val Cys Lys Ala Asp Glu Lys Phe Asn Gln Leu Val His Phe Leu Arg Asn His Lys Gln Glu Lys His Leu Val Phe Phe Ser Thr Cys Ala Cys Val Glu Tyr Tyr Gly Lys Ala Leu Glu Val Leu Val Lys Gly Val Lys Ile Met Cys Ile His Gly Lys Met Lys Tyr Lys Arg Asn Lys 11e Phe Met Glu Phe Arg Lys Leu Gln Ser Gly 11e Leu Val Cys Thr Asp Val Met Ala Arg Gly lle Asp lle Pro Glu Val Asn Trp Val Leu Gln Tyr Asp Pro Pro Ser Asn Ala Ser Ala Phe Val His Arg Cys Gly Arg Thr Ala Arg Ile Gly His Gly Gly Ser Ala Leu Val Phe Leu Leu Pro Met Glu Glu Ser Tyr Ile Asn Phe Leu Ala Ile Ser Gln Lys Val Ser Cys Arg Pro Phe Ser Asp Arg Met Pro Ser Asp Gly Val Ala Gly Lys Val Leu Gln His Val Val Ser Asn 

<210> 4889

<211> 700

<212> PRT

<213> Homo sapiens

<400> 512

Met Leu Ser Asp Asp His Val Asn Glu Ile Ile Ile Gln Lys Leu Ile

1 5 10 15

Ala	Ser	Leu	He	Pro	Met	Thr	Ser	Arg	Asp	Arg	He	Lys	Ala	lle	Arg
			20					25					30		
Asn	Gln	Pro	Arg	Thr	Met	Glu	Glu	Lys	Arg	Asn	Leu	Ser	Arg	Gly	Gly
		35					40					45			
Leu	Thr	He	Thr	Th.r	Glu	Asp	Glu	Gly	Arg	Ala	Lys	Ala	His	Leu	Thr
	50					55					60				
Trp	Trp	Lys	He	Val	Asp	Lys	Glu	Lys	Ser	-	Gln	Thr	His	Arg	He
65					70					75	_				80
Leu	Gln	Leu	Asn		Cys	He	Gln	Cys		Asn	Ser	He	Ser		Ala
<b>m</b>				. 85					90	7.1	,		0	95	
lyr	Arg	Arg		Lys	Asn	Ser	Leu		Glu	He	Leu	Asn		11e	Ser
	т	C1	100	TI	1	,	7.7	105	C1	C1	1	DI	110	T1 -	Ć.,,
Leu	rp		Lys	inr	Leu	Lys		116	61 y	GIY	Lys		61 y	inr	ser
Vol	Lou	115	Tur	Dho	Acn	Phe	120	Ama	Tun	Lou	Lou	125	Dho	Acn	116
val	130	sei	1 7 1	rne	ASII	135	Leu	AIg	пр	Leu	140	Lys	гие	NSII	116
Pho		Phe	ماآ	Lau	Aen	Phe	Sor	Phe	He	Πla		Pro	Gln	Phe	Thr
145	561	1110	110	LCu	150	THE	501	THE	110	155	110	110	Oill	1110	160
	Ala	Lvs	Lvs	Asn		Leu	Gln	Phe	Thr		Leu	Glu	Phe	Phe	
		,	,	165					170	J				175	
Gly	Val	Gly	Tyr	Phe	Arg	Asp	Thr	Val	Met	Tyr	Tyr	Gly	Phe	Tyr	Thr
			180					185					190		
Asn	Ser	Thr	He	G1n	His	G1 y	Asn	Ser	G1 y	Ala	Ser	Tyr	Asn	Met	Gln
		195					200					205			
Leu	Ala	Tyr	He	Phe	Thr	lle	Gly	Ala	Cys	Leu	Thr	Thr	Cys	Phe	Phe
	210					215					220				
Ser	Leu	Leu	Phe	Ser	Met	Ala	Lys	Tyr	Phe	Arg	Asn	Asn	Phe	Пе	Asn
225					230					235					240
Pro	His	Ile	Tyr	Ser	G1y	Gly	He	Thr	Lys	Leu	lle	Phe	Cys	Trp	Asp
				245					250					255	
Phe	Thr	Val	Thr	His	Glu	Lys	Ala	Val	Lys	Leu	Lys	Gln	Lys	Asn	Leu
			260					265					270		
Ser	Thr	Glu	lle	Arg	Glu	Asn	Leu	Ser	Glu	Leu	Arg	Gln	Glu	Asn	Ser
		275					280					285			
Lys		Thr	Phe	Asn	GIn	Leu	Leu	Thr	Arg	Phe		Ala	Tyr	Met	Val
	290					295					300				

Ala	Trp	Val	Val	Ser	Thr	G1 y	Val	Ala	Пе	Ala	Cys	Cys	Ala	Ala	Val
305					310					315					320
Tyr	Tyr	Leu	Ala	Glu	Tyr	Asn	Leu	Glu	Phe	Leu	Lys	Thr	His	Ser	Asn
				325					330					335	
Pro	Gly	Ala	Val	Leu	Leu	Leu	Pro	Phe	Val	Val	Ser	Cys	He	Asn	Leu
			340					345					350		
Ala	Val	Pro	Cys	Ile	Tyr	Ser	Met	Phe	Arg	Leu	Val	Glu	Arg	Tyr	Glu
		355					360					365			
Met	Pro	Arg	His	Glu	Val	Tyr	Val	Leu	Leu	lle	Arg	Asn	Ile	Phe	Leu
	370					375					380				
Lys	Ile	Ser	He	Ile	Gly	lle	Leu	Cys	Tyr	Tyr	Trp	Leu	Asn	Thr	Val
385					390					395					400
Ala	Leu	Ser	Gly	Glu	Glu	Cys	Trp	Gly	Thr	Leu	He	Gly	Gln	Asp	He
				405					410					415	
Tyr	Arg	Leu	Leu	Leu	Met	Asp	Phe	Val	Phe	Ser	Leu	Val	Asn	Ser	Phe
			420					425					430		
Leu	Gly	Glu	Phe	Leu	Arg	Arg	Ile	lle	Gly	Met	Gln	Leu	Ile	Thr	Ser
		435					440					445			
Leu	Gly	Leu	Gln	Glu	Phe	Asp	lle	Ala	Arg	Asn	Val	Leu	Glu	Leu	He
	450					455					460				
Tyr	Ala	Gln	Thr	Leu	Val	Trp	Ile	Gly	He	Phe	Phe	Arg	Pro	Leu	Leu
465					470					475					480
Pro	Phe	He	Gln	Met	lle	Met	Leu	Phe	He	Met	Phe	Tyr	Ser	Lys	Asn
				485					490					495	
Пе	Ser	Leu	Met	Met	Asn	Phe	Gln	Pro	Pro	Ser	Lys	Ala	Trp	Arg	Ala
			500					505					510		
Ser	Gln	Met	Met	Thr	Phe	Phe	lle	Phe	Leu	Leu	Phe	Phe	Pro	Ser	Phe
		515					520					525			
Thr	Gly	Val	Leu	Cys	Thr	Leu	Ala	He	Thr	He	Trp	Arg	Leu	Lys	Pro
	530					535					540				
Ser	Ala	Asp	Cys	Gly	Pro	Phe	Arg	Gly	Leu	Pro	Leu	Phe	lle	His	Ser
545					550					555					560
He	Tyr	Ser	Trp	lle	Asp	Thr	Leu	Ser	Thr	Arg	Pro	Gly	Tyr	Leu	Trp
				565					570					575	
Val	Val	Trp	He	Tyr	Arg	Asn	Leu	He	Gly	Ser	Val	His	Phe	Phe	Phe
			580					585					590		

lle Leu Thr Leu Ile Val Leu Ile Ile Thr Tyr Leu Tyr Trp Gln lle 600 605 Thr Glu Gly Arg Lys Ile Met Ile Arg Leu Leu His Glu Gln Ile Ile 610 615 620 Asn Glu Gly Lys Asp Lys Met Phe Leu Ile Glu Lys Leu Ile Lys Leu 630 635 640 625 Gln Asp Met Glu Lys Lys Ala Asn Pro Ser Ser Leu Val Leu Glu Arg 645 650 Arg Glu Val Glu Gln Gln Gly Phe Cys Ile Trp Gly Asn Met Met Ala 665 670 660 Val Leu Thr Cys Asp Leu Glu Asp Gln Phe Lys Lys Ala Ile Gln Gly 680 Pro Asp Asp Ser Phe Gly Asn Gln Thr Pro 11e Lys 690 695

<210> 4890

<211> 174

<212> PRT

<213> Homo sapiens

<400> 513

Met Ile Ser Asn Leu Ser Trp Glu Leu Pro Gly Ser Leu Pro Leu Ile 1 5 10 15

Ser Val Pro Tyr Ser Met His Cys Cys Thr Leu Gly Phe Leu Ser Cys 20 25 30

Ser Leu Phe Leu His Met Ser Phe Glu Leu Lys Leu Leu Leu Leu Leu 35 40 45

Leu Trp Leu Ala Ala Ser Cys Ser Leu Phe Leu His Ser His Ala Trp 50 55 60

Leu Ser Glu Cys Leu Ile Val Arg Leu Tyr Leu Gly Pro Leu Asp Ser 65 70 75 80

Arg Pro Gly Val Leu Lys Glu Pro Lys Leu Met Gly Ala 11e Ser Phe 85 90 95

Phe Ile Phe Phe Phe Thr Leu Leu Val Leu Ala Arg Gl<br/>n Asn Glu Tyr 100  $$105\$ 110

Tyr Cys Arg Leu Asp Phe Leu Trp Lys Lys Lys Leu Arg Gln Glu Arg

115

Glu Glu Thr Glu Thr Met Glu Asn Leu Thr Arg Leu Leu Leu Glu Asn

130

Val Leu Pro Ala His Val Ala Pro Gln Phe Ile Gly Gln Asn Arg Arg

145

Asn Glu Ser Pro Val Pro Pro Gly Ser Leu Pro Pro Val Leu

165

170

<210> 4891

<211> 546

<212> PRT

<213> Homo sapiens

<400> 514 Met Ile His Thr Thr Glu Lys Pro Tyr Arg Cys Asn Glu Ser Gly Lys Ala Phe His Arg Gly Ser Leu Leu Thr Val His Gln Ile Val His Thr Arg Gly Lys Pro Tyr Gln Cys Asp Val Cys Gly Arg Ile Phe Arg Gln Asn Ser Asp Leu Val Asn His Arg Arg Ser His Thr Gly Asp Lys Pro Tyr Ile Cys Asn Glu Cys Gly Lys Ser Phe Ser Lys Ser Ser His Leu Ala Val His Gln Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Arg Cys Gly Lys Cys Phe Ser Gln Ser Ser Ser Leu Ala Thr His Gln Thr Val His Thr Gly Asp Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Thr Phe Lys Arg Asn Ser Ser Leu Thr Ala His His Ile Ile His Ala 

Gly Lys Lys Pro Tyr Thr Cys Asp Val Cys Gly Lys Val Phe Tyr Gln

1	Asn	Ser	Gln	Leu	Val	Arg	His	G1n	He	11e	His	Thr	G1 y	Glu	Thr	Pro
					165					170					175	
•	Гуr	Lys	Cys	Asn	Glu	Cys	Gly	Lys	Val	Phe	Phe	G1n	Arg	Ser	Arg	Leu
				180					185					190		
I	A]a	G1y	His	Arg	Arg	Пе	His	Thr	Gly	Glu	Lys	Pro	Tyr	Lys	Cys	Asn
			195					200					205			
(	Glu	Cys	Gly	Lys	Val	Phe	Ser	Gln	His	Ser	His	Leu	Ala	Val	His	Gln
		210					215					220				
I	Arg	Val	His	Thr	Gly	Glu	Lys	Pro	Tyr	Lys	Cys	Asn	Glu	Cys	Gly	Lys
2	225					230					235					240
i	Ala	Phe	Asn	Trp	G1 y	Ser	Leu	Leu	Thr	Val	His	Gln	Arg	Ile	His	Thr
					245					250					255	
(	Gly	Glu	Lys	Pro	Tyr	Lys	Cys	Asn	Val	Cys	Gly	Lys	Val	Phe	Asn	Tyr
				260					265					270		
(	Gly	Gly	Tyr	Leu	Ser	Val	His	Met	Arg	Cys	His	Thr	Gly	Glu	Lys	Pro
			275					280					285			
]	Leu	His	Cys	Asn	Lys	Cys	Gly	Met	Val	Phe	Thr	Tyr	Tyr	Ser	Cys	Leu
		290					295					300				
1	Ala	Arg	His	Gln	Arg	Met	His	Thr	Gly	Glu	Lys	Pro	Tyr	Lys	Cys	Asn
	305					310					315					320
1	Val	Cys	Gly	Lys	Val	Phe	Ile	Asp	Ser	Gly	Asn	Leu	Ser	Ile	His	Arg
					325					330					335	
,	Arg	Ser	His	Thr	Gly	Glu	Lys	Pro	Phe	Gln	Cys	Asn	Glu	Cys	Gly	Lys
				340					345					350		
,	Val	Phe	Ser	Tyr	Tyr	Ser	Cys	Leu	Ala	Arg	His	Arg	Lys	lle	His	Thr
			355					360					365			
(	Gly	Glu	Lys	Pro	Tyr	Lys	Cys	Asn	Asp	Cys	Gly	Lys	Ala	Tyr	Thr	Gln
		370					375					380				
ı	Arg	Ser	Ser	Leu	Thr	Lys	His	Leu	Val	lle	His	Thr	Gly	Glu	Asn	Pro
	385					390					395					400
•	Tyr	His	Cys	Asn	Glu	Phe	Gly	Glu	Ala	Phe	He	Gln	Ser	Ser	Lys	Leu
					405					410					415	
	Ala	Arg	Tyr	His	Arg	Asn	Pro	Thr	$Gl\mathbf{y}$	Glu	Lys	Pro	His	Lys	Cys	Ser
				420					425					430		
(	Glu	Cys	Gly	Arg	Thr	Phe	Ser	His	Lys	Thr	Ser	Leu	Val	Tyr	His	Gln
			435					440					445			

Arg Arg His Thr Gly Glu Met Pro Tyr Lys Cys Ile Glu Cys Gly Lys 455 Val Phe Asn Ser Thr Thr Leu Ala Arg His Arg Arg Ile His Thr 465 470 475 480 Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Val Phe Arg Tyr 485 490 Arg Ser Gly Leu Ala Arg His Trp Ser Ile His Thr Gly Glu Lys Pro 505 Tyr Lys Cys Asn Glu Cys Gly Lys Ala Phe Arg Val Arg Ser Ile Leu 515 520 525 Leu Asn His Gln Met Met His Thr Gly Glu Lys Pro Tyr Lys Cys Asn 530 535 540 Glu Cys 545

<210> 4892

<211> 113

<212> PRT

<213> Homo sapiens

<400> 515

Met Met His Leu Gln Pro Ala Trp Ser Ser Phe Gly Gln Ser Gly Pro
1 5 10 15

11e Leu Met Arg Ser Gly Gly Met Gln Leu Leu Leu Leu Pro His Gly
20 25 30

Ser Val Arg Pro Asn Gln Pro Ala Leu Ser Pro Leu Pro Ala Val Tyr 35 40 45

Gln Val Ala Leu Glu Arg Gly His Pro Glu Gly Thr Thr Cys Ala Ala 50 55 60

Val Gly Gly Lys lle Asn Arg Pro Arg Thr Pro Gly Gln Ala Gly
65 70 75 80

Ala Thr Glu Glu Val Ser Ser Lys Gly Gly Lys Leu Ser Gly Leu Phe
85 90 95

Leu Thr Ile Leu Pro Val Pro Arg Pro Trp Thr Ala Gly Gln Pro Gln
100 105 110

Ser

<210> 4893

<211> 129

<212> PRT

<213> Homo sapiens

<400> 516

Met Met Thr Asp Leu Lys Gln Ser His Ser Val Arg Leu Asn Asp Gly

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Pro Phe Met Pro Val Leu Gly Phe Gly Thr Tyr Ala Pro Asp His Thr
20 25 30

Pro Lys Ser Gln Ala Ala Glu Ala Thr Lys Val Ala Ile Asp Val Gly
35 40 45

Phe Arg His Ile Asp Ser Ala Tyr Leu Tyr Gln Asn Glu Glu Glu Val
50 55 60

Gly Gln Ala Ile Trp Glu Lys Ile Ala Asp Gly Thr Val Lys Arg Glu
65 70 75 80

Glu Ile Phe Tyr Thr Ile Lys Leu Trp Ala Thr Phe Phe Arg Ala Glu 85 90 95

Leu Val His Pro Ala Leu Glu Arg Ser Leu Lys Lys Leu Gly Pro Asp 100 105 110

Tyr Val Asp Leu Phe Ile Ile His Val Pro Phe Ala Met Lys Gly Ser 115 120 125

Ser

<210> 4894

<211> 105

<212> PRT

<213> Homo sapiens

<400> 517

Met Cys Pro Val Cys Gly Arg Ala Leu Ser Ser Pro Gly Ser Leu Gly 10 Arg His Leu Leu Ile His Ser Glu Asp Gln Arg Ser Asn Cys Ala Val 25 Cys Gly Ala Arg Phe Thr Ser His Ala Thr Phe Asn Arg Ser Ala Gly 35 40 45 His Leu Ser Leu Leu Cys Trp Glu Gln lle Thr Gly Cys Glu Phe Cys 55 Phe Leu Lys Ser Lys Arg Arg Leu Glu Ile Gly Asn Ala Lys Ala Ala 65 70 75 Asp Ala Cys Ser Leu Glu Val Gln Val Arg Arg Leu Gly Asn Met Pro 85 90 95 lle Pro Ser His Ser Pro Lys Gly Lys 100

<210> 4895

<211> 646

<212> PRT

<213> Homo sapiens

<400> 518

Met Phe Leu Ser Ile Ser Thr Arg Leu Pro Ser Gln Tyr Ile Tyr Gly
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Phe Gly Glu Thr Glu His Thr Thr Phe Arg Arg Asn Met Asn Trp Asn 20 25 30

Thr Trp Gly Met Phe Ala His Asp Glu Pro Pro Ala Tyr Lys Lys Asn 35 40 45

Ser Tyr Gly Val His Pro Tyr Tyr Met Ala Leu Glu Glu Asp Gly Ser 50 55 60

Ala His Gly Val Leu Leu Leu Asn Ser Asn Ala Met Asp Val Thr Leu 65 70 75 80

Gln Pro Thr Pro Ala Leu Thr Tyr Arg Thr Thr Gly Gly Ile Leu Asp 85 90 95

Phe Tyr Ile Val Leu Gly Pro Thr Pro Glu Leu Val Thr Gln Gln Tyr 100 105 110

Thr	Glu	Leu	lle	Gly	Arg	Pro	Ala	Met	He	Pro	Tyr	Trp	Ala	Leu	Gly
		115					120					125			
Phe	His	Leu	Ser	Arg	Tyr	Gly	Tyr	Gln	Asn	Asp	Ala	Glu	Пe	Ser	Ser
	130					135					140				
Leu	Tyr	Asp	Ala	Met	Val	Ala	Ala	Gln	He	Pro	Tyr	Asp	Val	Gln	His
145					150					155					160
Val	Asp	He	Asp	Tyr	Met	Asn	Arg	Lys	Leu	Asp	Phe	Thr	Leu	Ser	Ala
				165					170					175	
Asn	Phe	Gln	Asn	Leu	Ser	Leu	Leu	He	Glu	Gln	Met	Lys	Lys	Asn	Gly
			180					185					190		
Met	Arg	Phe	He	Leu	Ile	Leu	Asp	Pro	Ala	Ile	Ser	Gly	Asn	Glu	Thr
		195					200					205			
Gln	Tyr	Leu	Pro	Phe	He	Arg	G1 y	G1n	Glu	Asn		Val	Phe	He	Lys
	210					215					220				
	Pro	Asp	Thr	Asn		lle	Val	Trp	G1 y		Va1	Trp	Pro	Asp	
225					230		_			235					240
Pro	Asn	Val	lle		Asp	Gly	Ser	Leu	-	His	Glu	Thr	Gln		Lys
	_			245					250					255	
Leu	Tyr	Arg		Tyr	Val	Ala	Phe		Asp	Phe	Phe	Arg		Ser	Thr
		<b></b>	260			61	* 1	265	61		Tr.	. 1	270	D	
Ala	Ala		Trp	Lys	Lys	Glu		Glu	Glu	Leu	lyr		Asn	Pro	Arg
0.1	D	275	,	0			280		61		an.	285			
61u		Glu	Lys	Ser	Leu	Lys	Phe	Asp	Gly	Leu		11e	Asp	Met	Asn
C1	290 D	C	Α	DL.	V - 1	295	C1	C	V - 1	Δ	300	C	C	۸	C1
	Pro	ser	ASI	rne		Asp	GIY	ser	vai		GIY	Cys	ser	ASI	
305	1	A a.u.	A 0.10	Due	310	Т	Mat	Dua	Tun	315	C1	Can	A 20 cm	A a.u.	320
мет	Leu	ASII	ASH	325	110	Tyr	мес	rro	330	Leu	Gju	261	Arg	335	Lys
Cly	Lou	Sor	Sor		The	Leu	Cvc	Mot		Sor	Gln	Gln	110		Pro
GIŸ	Leu	261	340	LyS	1111	Leu	Cys	345	oru	361	OIII	OIII	350	Leu	110
Acn	Sor	Sor		Val	Glu	His	Tur		Val	Hie	Aen	Lau		Glv	Trn
veh	Sei	355	110	vai	oru	1115	360	лы	vai	1113	ASII	365	1 ў 1	Gly	пр
Sor	Gln		Aro	Pro	Thr	Tyr		Ala	Val	Gln	Glu		Thr	Glv	Gln
961	370	1 113	иg	110	1113	375	oru	1110	161	0111	380	, 01	1111	ОТУ	111.0
Arø		Val	He	He	Thr	Arg	Ser	Thr	Phe	Pro		Ser	GIv	Arø	Trn
385	01,			110	390	8	001			395	001	551	Oly	8	400
., 50										500					

Gly	Gly	His	Arg	Leu	Gly	Asn	Asn	Thr	Ala	Ala	Trp	Asp	Gln	Leu	Gly
				405					410					415	
Lys	Ser	He	11e	Gly	Met	Met	Glu	Phe	Ser	Leu	Phe	Gly	lle	Pro	Tyr
			420					425					430		
Thr	Gly	Ala	Asp	He	Cys	Gly	Phe	Phe	Gly	Asp	Ala	Glu	Tyr	Glu	Met
		435					440					445			
Cys	Val	Arg	Trp	Met	Gln	Leu	Gly	Ala	Phe	Tyr	Pro	Phe	Ser	Arg	Asn
	450					455					460				
His	Asn	Asn	lle	Gly	Thr	Arg	Arg	Gln	Asp	Pro	Val	Ala	Trp	Asn	Ser
465					470					475					480
Thr	Phe	Glu	Met	Leu	Ser	Arg	Lys	Val	Leu	Glu	Thr	Arg	Tyr	Thr	Leu
				485					490					495	
Leu	Pro	Tyr	Leu	Tyr	Thr	Leu	Met	His	Lys	Ala	His	Va]	Glu	Gly	Ser
			500					505					510		
Thr	Val	Val	Arg	Pro	Leu	Leu	His	Glu	Phe	Thr	Asp	Asp	Arg	Thr	Thr
		515					520					525			
Trp	Asp	He	Asp	Arg	Gln	Phe	Met	Leu	Gly	Pro	Ala	Ile	Leu	Ile	Ser
	530					535					540				
Pro	Val	Leu	Glu	Thr	Ser	Thr	Phe	Glu	lle	Ser	Ala	Tyr	Phe	Pro	Arg
545					550					555					560
Ala	Arg	Trp	Tyr	Asp	Tyr	Ser	Thr	Gly	Thr	Ser	Ser	Thr	Ser	Thr	G1 y
				565					570					575	
Gln	Arg	Lys	He	Leu	Lys	Ala	Pro	Leu	Asp	His	lle	Asn	Leu	His	Val
			580					585					590		
Arg	Gly	Gly	Tyr	lle	Leu	Pro	Trp	Gln	Glu	Pro	Ala	Met	Asn	Thr	His
		595					600					605			
Ser	Ser	Arg	Gln	Asn	Phe	Met	Gly	Leu	He	Val	Ala	Leu	Asp	Asp	Asn
	610					615					620				
Gly	Thr	Ala	Glu	Gly	Gln	Val	Phe	Trp	Asp	Asp	Gly	Gln	Ser	He	Val
625					630					635					640
Phe	Asn	Thr	Thr	Ala	Met										
				645											

<210> 4896

⟨211⟩ 472

<212	2> PF	TS													
<213	8> He	omo s	sapie	ens											
<400	)> 51	19													•
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Lys	Leu	Pro	Pro	Pro	Ser	Ala	Pro	Ala	Ser	Glu	Tyr	Cys	Pro	Gly	Lys
			20					25					30		
Leu	Ser	Trp	Gly	Thr	Met	Ala	Arg	Ala	Leu	Gly	Arg	Phe	Lys	Leu	Ser
		35					40					45			
He	Pro	His	Thr	His	Leu	Leu	Ala	Thr	Leu	Asp	Pro	Leu	Ala	Leu	Asp
	50					55					60				
Arg	Glu	Pro	Pro	Pro	His	Leu	Leu	Pro	Glu	Lys	His	Gln	Val	Pro	Glu
65					70					75					80
Lys	Leu	He	Trp	Gly	Asp	Gln	Asp	Pro	Leu	Ser	Lys	lle	Pro	Phe	Lys
				85					90					95	
He	Leu	Ser	Gly	His	Glu	His	Ala	Val	Ser	Thr	Cys	His	Phe	Cys	Val
			100					105					110		
Asp	Asp	Thr	Lys	Leu	Leu	Ser	Gly	Ser	Tyr	Asp	Cys	Thr	Val	Lys	Leu
		115					120					125			
Trp	Asp	Pro	Va]	Asp	Gly	Ser	Val	Val	Arg	Asp	Phe	Glu	His	Arg	Pro
	130					135					140				
Lys	Ala	Pro	Val	Val	Glu	Cys	Ser	Пе	Thr	Gly	Asp	Ser	Ser	Arg	Val
145					150					155					160
He	Ala	Ala	Ser	Tyr	Asp	Lys	Thr	Val	Arg	Ala	Trp	Asp	Leu	Glu	Thr
				165					170					175	
Gly	Lys	Leu	Leu	Trp	Lys	Val	Arg	Tyr	Asp	Thr	Phe	He	Val	Ser	Cys
			180					185					190		
Lys	Phe	Ser	Pro	Asp	Gly	Lys	Tyr	Val	Val	Ser	Gly	Phe	Asp	Va]	Asp
		195					200					205			
llis	Gly	He	Cys	He	Met	Asp	Ala	Glu	Asn	lle	Thr	Thr	Val	Ser	Val
	210					215					220				
He	Lys	Asp	His	His	Thr	Arg	Ser	Пе	Thr	Ser	Cys	Cys	Phe	Asp	Pro

Asp Ser Gln Arg Val Ala Ser Val Ser Leu Asp Arg Cys 11e Lys 11e

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Trp Asp Val Thr Ser Gln Ala Thr Leu Leu Thr lle Thr Lys Ala His
                                265
Ser Asn Ala lle Ser Asn Cys Cys Phe Thr Phe Ser Gly His Phe Leu
        275
                            280
                                                 285
Cys Thr Ser Ser Trp Asp Lys Asn Leu Lys Ile Trp Asn Val His Thr
    290
                        295
Gly Glu Phe Arg Asn Arg Gly Ala Cys Val Thr Leu Met Gln Gly His
305
                    310
                                         315
                                                             320
Glu Gly Ser Val Ser Ser Cys His Phe Ala Arg Asp Ser Ser Phe Leu
                325
                                     330
lle Ser Gly Gly Phe Asp Arg Thr Val Ala lle Trp Asp Val Ala Glu
                                345
Gly Tyr Arg Lys Leu Ser Leu Lys Gly His Asn Asp Trp Val Met Asp
        355
                            360
                                                 365
Val Ala Ile Ser Asn Asn Lys Lys Trp Ile Leu Ser Ala Ser Lys Asp
    370
                        375
                                             380
Arg Thr Met Arg Leu Trp Asn lle Glu Glu Ile Asp Glu Ile Pro Leu
                    390
                                         395
                                                             400
Val Ile Lys Tyr Lys Lys Ala Val Gly Leu Lys Leu Lys Gln Cys Glu
                405
                                     410
                                                         415
Arg Cys Asp Arg Pro Phe Ser 11e Phe Lys Ser Asp Thr Ser Ser Glu
                                425
Met Phe Thr Gln Cys Val Phe Cys Arg Ile Asp Thr Arg Gly Leu Pro
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                            440
                                                 445
Ala Asp Thr Ser Ser Ser Ser Ser Ser Ser Glu Arg Glu Asn Ser Pro
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                        455
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Pro Pro Arg Gly Ser Lys Asp Asp
465
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<210> 4897

<211> 466

<212> PRT

<213> Homo sapiens

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Arg	Gly	Val	Glu	Pro	Leu	Asp	Ala	Ala	Arg	Ala	Gln	Pro	Ala	Lys	Ası
			20					25					30		
Arg	۸rg	Ala	Lys	Gly	Thr	Pro	Lys	Ser	Ser	Lys	Pro	Gly	Lys	Lys	His
		35					40					45			
Arg	Tyr	Leu	Arg	Leu	Leu	Pro	Glu	Ala	Leu	lle	Arg	Phe	Gly	Gly	Phe
	50					55					60				
Arg	Lys	Arg	Lys	Lys	Ala	Lys	Ser	Ser	Val	Ser	Lys	Lys	Pro	Gly	Glu
65					70					75					80
Val	Asp	Asp	Ser	Leu	Glu	Gln	Pro	Cys	Gly	Leu	Gly	Cys	Leu	Val	Sei
				85					90					95	
Thr	Cys	Cys	Glu	Cys	Cys	Asn	Asn	He	Arg	Cys	Phe	Met	He	Phe	Туз
			100					105					110		
Cys	He	Leu	Leu	Ile	Cys	Gln	Gly	Val	Va]	Phe	Gly	Leu	He	Asp	Va:
		115					120					125			
Ser	Ile	Gly	Asp	Phe	Gln	Lys	Glu	Tyr	Gln	Leu	Lys	Thr	Ile	Glu	Lys
	130					135					140				
Leu	Ala	Leu	Glu	Lys	Ser	Tyr	Asp	He	Ser	Ser	Gly	Leu	Val	Ala	$\Pi \epsilon$
145					150					155					160
Phe	He	Ala	Phe	Tyr	Gly	Asp	Arg	Lys	Lys	Val	lle	Trp	Phe	Val	Ala
				165					170					175	
Ser	Ser	Phe	Leu	lle	Gly	Leu	Gly	Ser	Leu	Leu	Cys	Ala	Phe	Pro	Sei
			180					185					190		
He	Asn	Glu	Glu	Asn	Lys	Gln	Ser	Lys	Val	Gly	lle	Glu	Gly	He	Ala
		195					200					205			
Glu	Cys	Thr	Ser	Met	He	Gly	Tyr	Ala	Leu	Gly	Tyr	Val	Leu	Gly	Ala
	210					215					220				
Pro	Leu	Val	Lys	Val	Pro	Glu	Asn	Thr	Thr	Ser	Ala	Thr	Lys	Thr	GI:
225					230					235					240
Lys	Leu	Gly	Asn	Leu	Thr	Ala	Pro	Cys	Asn	Glu	Lys	Cys	Arg	Cys	Sei
				245					250					255	
Ser	Ser	He	Tyr	Ser	Ser	He	Cys	Gly	Arg	Asp	Asp	He	Glu	Tyr	Phe
			260					265					270		
Car	Duo	Cvc	Dho	A 1	$c_{1}$	Cuc	Than	T	Can	1	A 1 a	Cln	Aon	Cla	1

Lys Met Tyr Tyr Asn Cys Ser Cys Ile Lys Glu Gly Leu Ile Thr Ala Asp Ala Glu Gly Asp Phe Ile Asp Ala Arg Pro Gly Lys Cys Asp Ala Lys Cys Tyr Lys Leu Pro Leu Phe IIe Ala Phe IIe Phe Ser Thr Leu Ile Phe Ser Gly Phe Ser Gly Val Pro Ile Val Leu Ala Met Thr Arg Val Val Pro Asp Lys Leu Arg Ser Leu Ala Leu Gly Val Ser Tyr Val Ile Leu Arg Ile Phe Gly Thr Ile Pro Gly Pro Ser Ile Phe Lys Met Ser Gly Glu Thr Ser Cys Ile Leu Arg Asp Val Asn Lys Cys Gly His Arg Gly Arg Cys Trp Ile Tyr Asn Lys Thr Lys Met Ala Phe Leu Leu Val Gly Ile Cys Phe Leu Cys Lys Leu Cys Thr Ile Ile Phe Thr Thr Ile Ala Phe Phe Ile Tyr Lys Arg Arg Leu Asn Glu Asn Thr Asp Phe Pro Asp Val Thr Val Lys Asn Pro Lys Val Lys Lys Glu Glu Thr Asp Leu 

<210> 4898

<211> 679

<212> PRT

<213≻ Homo sapiens

<400> 521

Met Met His Tyr Leu Lys Asn Ile Met Ile Ala Val Val Glu Ser Met

1 5 10 15

Ile Asn Lys Phe Glu Glu Asp Glu Thr Arg Asn Gln Glu Arg Gln Lys

			20					25					30		
Lys	Ile	Gln	Lys	Glu	Lys	Ser	His	Ser	Tyr	Arg	Thr	Asp	Asn	Cys	Ser
		35					40					45			
Asp	Ser	Asp	Ser	Ser	Leu	Asn	Gln	Ser	Tyr	Lys	Phe	Cys	G1n	Gly	Lys
	50					55					60				
Leu	Gln	Leu	lle	Leu	Asp	Gln	Leu	Asp	Pro	Gly	Gln	Pro	Lys	Glu	Val
65					70					75					80
Arg	Tyr	Glu	Ala	Leu	Gln	Thr	Leu	Cys	Ser	Ala	Pro	Pro	Ser	Asp	Val
				85					90					95	
Leu	Asn	Cys	Glu	Asn	Trp	Thr	Thr	Leu	Cys	Glu	Lys	Leu	Thr	Val	Ser
			100					105					110		
Leu	Ser	Asp	Pro	Asp	Pro	Val	Phe	Ser	Asp	Arg	He	Leu	Lys	Phe	Cys
		115					120					125			
Ala	Gln	Thr	Phe	Leu	Leu	Ser	Pro	Leu	His	Met	Thr	Lys	Glu	He	Tyr
	130					135					140				
Thr	Ser	Leu	Ala	Lys	Tyr	Leu	Glu	Ser	Tyr	Phe	Leu	Ser	Arg	Glu	Asn
145					150					155					160
His	Ile	Pro	Thr	Leu	Ser	Ala	Gly	Val	Asp	Ile	Thr	Asn	Pro	Asn	Met
				165					170					175	
Thr	Arg	Leu	Leu	Lys	Lys	Val	Arg	Leu	Leu	Asn	Glu	Tyr	Gln	Lys	Glu
			180					185					190		
Ala	Pro	Ser	Phe	Trp	lle	Arg	His	Pro	Glu	Lys	Tyr	Met	Glu	Glu	11e
		195					200					205			
Val	Glu	Ser	Thr	Leu	Ser	Leu	Leu	Thr	Val	Lys	His	Asn	Gln	Ser	His
	210					215					220				
Val	Val	Ser	Gln	Lys	lle	Leu	Asp	Pro	Пe	Tyr	Phe	Phe	Ala	Leu	Val
225					230					235					240
Asp	Thr	Lys	Ala	Val	Trp	Phe	Lys	Lys	Trp	Met	His	Ala	His	Tyr	Ser
				245					250					255	
Arg	Thr	Thr	Val	Leu	Arg	Leu	Leu	Glu	Lys	Lys	Tyr	Lys	Ser	Leu	Val
			260					265					270		
Thr	Thr	Ala	He	Gln	Gln	Cys	Val	Gln	Tyr	Phe	Glu	Met	Cys	Lys	Thr
		275					280					285			
Arg	Lys	Ala	Asp	Glu	Thr	Leu	Gly	His	Ser	Lys	His	Cys	Arg	Asn	Lys
	290					295					300				
Gln	Lys	Thr	Phe	Tyr	Tyr	Leu	Gly	Gln	Glu	Leu	Gln	Tyr	He	Tyr	Phe

305					310					315					320
He	His	Ser	Leu	Cys	Leu	Leu	Gly	Arg	Leu	Leu	lle	Tyr	Lys	Gln	Gly
				325					330					335	
Arg	Lys	Leu	Phe	Pro	He	Lys	Leu	Lys	Asn	Lys	Lys	Gly	Leu	Val	Ser
			340					345					350		
Leu	He	Asp		Leu	Val	Leu	Phe	Thr	Gln	Leu	He	Tvr	Tyr	Ser	Pro
		355					360					365			
Ser	Cvs		Lvs	Met.	Thr	Ser		Ala	His	Ser	G1u		Tyr	Ser	Pro
	370		25,0			375					380				
Ala		Met	Val	Thr	Glu	Val	Len	Trn	مال	Len		Asn	Gln	lve	Glu
385	501	MCt	<b>7</b> 41	1111	390	, а 1	Lcu	пр	110	395	001	пор	0111	LyS	400
	A10	Val	Clu	Cvc		Tyr	Acn	Acn	По		110	Clu	Thr	Lou	
Cys	пта	vaı	Giu	405	Leu	1 y 1	ASII	лы	410	vai	116	GTU	111.1	415	Leu
Cl.	Dage	T1.	11;		Lau	Mat	Luc	C1		C1	Ala	Can	Daga		Cua
GIN	Pro	116		ASII	Leu	Met	Lys		ASII	GIU	мта	261.		ASII	Cys
C	C1	ть	420	1	т1.	112 -	71.	425	C1	т1.	1	11.	430	т1.	۸1
ser	61u		Ala	Leu	116	His		АТА	GIY	116	Leu		Arg	116	Ата
0	17 1	435	61	0.1	,	T 1	440	,		T	0.1	445			
Ser		Glu	Glu	Gly	Leu	Ile	Leu	Leu	Leu	lyr		Ala	Asn	Met	Asn
_	450					455					460				
	Ser	Glu	Glu	Ser		Thr	Gly	Ala	His		He	Ala	GIn	Phe	
465					470					475					480
Lys	Lys	Leu	Leu			Asp	lle	Ser			Ser	Gly	Ser		Met
				485	Glu				490	Phe				495	
				485	Glu	Asp Ala			490	Phe				495	
				485	Glu				490	Phe				495	
Leu	Pro	Val	Val 500	485 Lys	Glu Gly		Phe	11e 505	490 Ser	Phe Val	Cys	Arg	His 510	495 11e	Tyr
Leu	Pro	Val	Val 500	485 Lys	Glu Gly	Ala	Phe	11e 505	490 Ser	Phe Val	Cys	Arg	His 510	495 11e	Tyr
Leu Ser	Pro Thr	Va] Cys 515	Val 500 Glu	485 Lys Gly	Glu Gly Leu	Ala	Phe Val 520	11e 505 Leu	490 Ser Ile	Phe Val Thr	Cys	Arg Asn 525	His 510 Leu	495 Ile His	Tyr Glu
Leu Ser	Pro Thr	Va] Cys 515	Val 500 Glu	485 Lys Gly	Glu Gly Leu	Ala Gln	Phe Val 520	11e 505 Leu	490 Ser Ile	Phe Val Thr	Cys	Arg Asn 525	His 510 Leu	495 Ile His	Tyr Glu
Leu Ser Ser	Pro Thr 11e 530	Val Cys 515 Ala	Val 500 Glu Lys	485 Lys Gly Ala	Glu Gly Leu Trp	Ala Gln Lys	Phe Val 520 Lys	Ile 505 Leu Thr	490 Ser 11e Ser	Phe Val Thr Leu	Cys Tyr Leu 540	Arg Asn 525 Ser	His 510 Leu Glu	495 lle His	Tyr Glu Ile
Leu Ser Ser	Pro Thr 11e 530	Val Cys 515 Ala	Val 500 Glu Lys	485 Lys Gly Ala	Glu Gly Leu Trp	Ala Gln Lys 535	Phe Val 520 Lys	Ile 505 Leu Thr	490 Ser 11e Ser	Phe Val Thr Leu	Cys Tyr Leu 540	Arg Asn 525 Ser	His 510 Leu Glu	495 lle His	Tyr Glu Ile
Leu Ser Ser Pro 545	Pro Thr Ile 530 Thr	Val Cys 515 Ala Pro	Val 500 Glu Lys Val	485 Lys Gly Ala Glu	Glu Gly Leu Trp Gly 550	Ala Gln Lys 535	Phe Val 520 Lys Asp	11e 505 Leu Thr	490 Ser Ile Ser Val	Phe Val Thr Leu Ser 555	Cys Tyr Leu 540 Ser	Arg Asn 525 Ser Val	His 510 Leu Glu Ser	495 lle His Arg	Tyr Glu Ile Glu 560
Leu Ser Ser Pro 545	Pro Thr Ile 530 Thr	Val Cys 515 Ala Pro	Val 500 Glu Lys Val	485 Lys Gly Ala Glu	Glu Gly Leu Trp Gly 550	Ala Gln Lys 535 Ser	Phe Val 520 Lys Asp	11e 505 Leu Thr	490 Ser Ile Ser Val	Phe Val Thr Leu Ser 555	Cys Tyr Leu 540 Ser	Arg Asn 525 Ser Val	His 510 Leu Glu Ser	495 lle His Arg	Tyr Glu Ile Glu 560
Leu Ser Ser Pro 545 Ser	Pro Thr 11e 530 Thr	Val Cys 515 Ala Pro	Val 500 Glu Lys Val	485 Lys Gly Ala Glu Met 565	Glu Gly Leu Trp Gly 550 Ala	Ala Gln Lys 535 Ser	Phe Val 520 Lys Asp	Ile 505 Leu Thr Ser	490 Ser Ile Ser Val Asn 570	Phe Val Thr Leu Ser 555 Leu	Cys Tyr Leu 540 Ser	Arg Asn 525 Ser Val	His 510 Leu Glu Ser	495 Ile His Arg Gln Leu 575	Tyr Glu Ile Glu 560 Leu
Leu Ser Ser Pro 545 Ser	Pro Thr 11e 530 Thr	Val Cys 515 Ala Pro	Val 500 Glu Lys Val	485 Lys Gly Ala Glu Met 565	Glu Gly Leu Trp Gly 550 Ala	Ala Gln Lys 535 Ser Trp	Phe Val 520 Lys Asp	Ile 505 Leu Thr Ser	490 Ser Ile Ser Val Asn 570	Phe Val Thr Leu Ser 555 Leu	Cys Tyr Leu 540 Ser	Arg Asn 525 Ser Val	His 510 Leu Glu Ser	495 Ile His Arg Gln Leu 575	Tyr Glu Ile Glu 560 Leu

Leu Gln Val Ser Arg His Lys Lys Phe Gly Tyr Gly Val Leu Val Thr Arg Val Ala Ser Thr Ala Ala Gly Gly Ile Ala Leu Lys Lys Ser Gly Phe Ile Asn Glu Leu Ile Thr Glu Leu Trp Ser Asn Leu Glu Tyr Gly Arg Asp Asp Val Arg Val Thr His Pro Arg Thr Thr Pro Val Asp Pro lle Asp Arg Ser Cys Gln Lys <210> 4899 <211> 1148 <212> PRT <213> Homo sapiens <400> 522 Met Val Leu Asn Leu Tyr Gln Leu Asn Gln Leu Asp Cys Pro Gly Gly Arg Leu Ile Gly Gly Trp Glu Asp Asn Pro Phe Lys Gly Asp Leu Lys lle Val Leu Arg Gly Asn His Thr Thr Gln Asp Trp Ala Leu Pro Glu Gly Pro Asn Gln Gly Ala Lys Val Leu Gly Val Phe Gly Glu Leu Asp Leu His Gly Ile Pro His Ser Ile Tyr Lys Thr Lys Leu Ser Glu Thr Ala Phe Ala Gly Ser Lys Val Leu Ser Leu Met Asp Ala Val Asp Trp Gln Glu Gly Glu Glu lle Val Ile Thr Thr Thr Ser Tyr Asp Phe His 

Gln Thr Glu Thr Arg Ser Ile Val Lys Ile Leu His Asp His Lys Ile

Leu	He	Leu	Asn	Asp	Ser	Leu	Ser	Tyr	Thr	His	Phe	Ala	Glu	Lys	Tyr
	130					135					140				
His	Val	Pro	Gly	Thr	Gly	Glu	Ser	Tyr	Thr	Leu	Ala	Ala	Asp	Val	Gly
145					150					155					160
Пe	Leu	Ser	Arg	Asn	He	Lys	Пе	Val	Gly	Glu	Asp	Tyr	Pro	Gly	Trp
				165					170					175	
Ser	Glu	Asp	Ser	Phe	Gly	Ala	Arg	Val	Leu	Val	Gly	Ser	Phe	Thr	Glu
			180					185					190		
Asn	Met	Met	Thr	Phe	Lys	Gly	Asn	Ala	Arg	Ile	Ser	Asn	Val	Glu	Phe
		195					200					205			
Tyr	His	Ser	Gly	Gln	Glu	G1 y	Phe	Arg	Asp	Ser	Thr	Asp	Pro	Arg	Tyr
	210					215					220				
Ala	Val	Thr	Phe	Leu	Asn	Leu	Gly	Gln	He	Gln	Glu	His	Gly	Ser	Ser
225					230					235					240
Tyr	lle	Arg	Gly	Cys	Ala	Phe	His	His	Gly	Phe	Ser	Pro	Ala	lle	Gly
				245					250					255	
Val	Phe	Gly		Asp	Gly	Leu	Asp		Asp	Asp	Asn	He	lle	His	Phe
			260					265					270		
Thr	Val		Glu	Gly	He	Arg		Trp	Gly	Asn	Ala		Arg	Val	Arg
		275					280	-				285			
Gly		Leu	He	Ala	Leu		Val	Trp	Pro	Gly		Tyr	GIn	Asn	Arg
	290				mı	295	<b>m</b>		. 1		300	0.1			
	Asp	Leu	Ser	Ser		Leu	Trp	His	Ala		116	Glu	He	Asn	
305	TI		TI	17 1	310	C 1			W 1	315	. 1	6.1	DI	C I	320
61 y	Inr	Asn	Inr		Leu	Gin	Asn	Asn		vai	Ala	GIY	Phe	Gly	Arg
۸1	C1	т	Λ	325	Λ	C1	C1	D	330	D	C1	C1	DI	335	D
мта	GTY	Tyr	340	116	ASP	Gly	Gru	345	Cys	rro	Gry	GIII	350	Asn	110
Val	Clu	Lve		Pho	Acn	Acn	Clu		Hic	Cly	Clv	Lou		G1 y	Ha
val	01u	355	11 b	rne	nsp	изп	360	мта	1115	Gry	Gry	365	1 y 1	GTy	116
Tur	Mot		Cln	Acn	Clv	Lou		C1v	Cvc	Sor	Lou		Gla	Gly	Pho
1 y 1	370	поп	OIII	лэр	Oly	375	110	Oly	Cys	261	380	116	OIII	Uly	THE
Thr		Trn	Thr	Cve	Trn		Tyr	C1v	110	Tyr		Gln	Thr	Thr	Clu
385	110	11 h	1111	Uy S	390	пор	. y 1	01 y	116	395	1 116	OTH	. 111	1 113	400
	Val	His	Πe	Tvr		Val	Thr	Leu	Val		Aen	Glv	Met	Ala	
501	, (1)	11.13	.10	405	11011	, (1)	1111	150 U		пэр		Ory	met	A15	

Phe	Pro	Met	He	Tyr	Met	Pro	Ala	Ala	He	Ser	His	Lys	He	Ser	Ser
			420					425					430		
Lys	Asn	Val	Gln	lle	Lys	Ser	Ser	Leu	He	Val	Gly	Ser	Ser	Pro	Gly
		435					440					445			
Phe	Asn	Cys	Ser	Asp	Val	Leu	Thr	Asn	Asp	Asp	Pro	Asn	He	Glu	Leu
	450					455			•		460				
Thr	Ala	Ala	His	Arg	Ser	Pro	Arg	Ser	Pro	Ser	Gly	Gly	Arg	Ser	Gly
465					470					475					480
Ile	Arg	Trp	Pro	Thr	Phe	Ala	Ser	Ala	His	Asn	Met	Ala	Pro	Arg	Lys
				485					490					495	
Pro	His	Ala	Gly	He	Met	Ser	Tyr	Asn	Ala	He	Ser	Gly	Leu	Leu	Asp
			500					505					510		
He	Ser	Gly	Ser	Thr	Phe	Val	Gly	Phe	Lys	Asn	Val	Cys	Ser	Gly	Glu
		515					520					525			
Thr	Asn	Val	He	Phe	lle	Thr	Asn	Pro	Leu	Asn	Glu	Asp	Leu	Gln	His
	530					535					540				
Pro	lle	His	Val	Lys	Asn	Ile	Lys	Leu	Val	Asp	Thr	Thr	Glu	Gln	Ser
545					550					555					560
Lys	He	Phe	Ile	His	Arg	Pro	Asp	He	Ser	Lys	Val	Asn	Pro	Ser	Asp
				565					570					575	
Cys	Val	Asp		Val	Cys	Asp	Ala		Arg	Lys	Ser	Phe		Arg	Asp
			580					585					590		
He	Asp		Ser	Phe	Leu	Gly		Ala	Gly	Ser	Val		Pro	Gln	Ala
		595					600					605			
Glu		Glu	Trp	Asp	Gly		Ser	Gln	Val	Gly		Gly	Asp	Tyr	Arg
	610					615					620				
	Pro	Lys	Ala	Met	Leu	Thr	Phe	Leu	Asn		Ser	Arg	He	Pro	
625	6.1			15	630		0.1			635			m		640
Thr	Glu	Lys	Ala		His	Lys	Gly	]]e		Arg	Asp	Ser	Thr		Lys
<b>T</b>	,		0.1	645	6.1	0	m	0.1	650	Di	0.1		<b>61</b>	655	
lyr	Leu	Pro		Irp	Gln	Ser	lyr		Cys	Phe	Gly	Met		lyr	Ala
			660	C1	C			665		T)	0.1	T)	670		
Met	Met		ile	GJu	Ser	Leu		Pro	Asp	Ihr	Glu		Arg	Arg	Leu
C	D.	675	A 7	7.7	14	C.1	680	C1	т	17 1		685	т 1		C 1
Ser		val	Ala	He	Met		Asn	61 y	lyr	Val		Leu	11e	Asn	ы
	690					695					700				

Pro Gln Asp His Gly Trp Cys Ala Gly Tyr Thr Cys Gln Arg Arg Leu Ser Leu Phe His Ser Ile Val Ala Leu Asn Lys Ser Tyr Glu Val Tyr Phe Thr Gly Thr Ser Pro Gln Asn Leu Arg Leu Met Leu Leu Asn Val Asp His Asn Lys Ala Val Leu Val Gly 11e Phe Phe Ser Thr Leu Gln Arg Leu Asp Val Tyr Val Asn Asn Leu Leu Val Cys Pro Lys Thr Thr lle Trp Asn Ala Gln Gln Lys His Cys Glu Leu Asn Asn His Leu Tyr Lys Asp Gln Phe Leu Pro Asn Leu Asp Ser Thr Val Leu Gly Glu Asn Tyr Phe Asp Gly Thr Tyr Gln Met Leu Tyr Leu Leu Val Lys Gly Thr Ile Pro Val Glu Ile His Thr Ala Thr Val Ile Phe Val Ser Phe Gln Leu Ser Val Ala Thr Glu Asp Asp Phe Tyr Thr Ser His Asn Leu Val Lys Asn Leu Ala Leu Phe Leu Lys Ile Pro Ser Asp Lys Ile Arg Ile Ser Lys Ile Arg Gly Lys Ser Leu Arg Arg Lys Arg Ser Met Gly Phe lle Ile Glu Ile Glu Ile Gly Asp Pro Pro Ile Gln Phe Ile Ser Asn Gly Thr Thr Gly Gln Met Gln Leu Ser Glu Leu Gln Glu 11e Ala Gly Ser Leu Gly Gln Ala Val Ile Leu Gly Asn Ile Ser Ser Ile Leu Gly Phe Asn Ile Ser Ser Met Ser Ile Thr Asn Pro Leu Pro Ser Pro Ser Asp Ser Gly Trp Ile Lys Val Thr Ala Gln Pro Val Glu Arg Ser Ala Phe Pro Val His His Val Ala Phe Val Ser Ser Leu Leu Val Ile Thr 

Gln Pro Val Ala Ala Gln Pro Gly Gln Pro Phe Pro Gln Gln Pro Ser 1000 1005 Val Lys Ala Thr Asp Ser Asp Gly Asn Cys Val Ser Val Gly 11e Thr 1015 1020 Ala Leu Thr Leu Arg Ala Ile Leu Lys Asp Ser Asn Asn Asn Gln Val 1030 1035 1025 1040 Asn Gly Leu Ser Gly Asn Thr Thr Ile Pro Phe Ser Ser Cys Trp Ala 1050 1045 Asn Tyr Thr Asp Leu Thr Pro Leu Arg Thr Gly Lys Asn Tyr Lys Ile 1070 1060 1065 Glu Phe Ile Leu Asp Asn Val Val Gly Val Glu Ser Arg Thr Phe Ser 1080 1085 Leu Leu Ala Glu Ser Val Ser Ser Ser Gly Ser Ser Ser Ser Asn 1095 1100 Ser Lys Ala Ser Thr Val Gly Thr Tyr Ala Gln Ile Met Thr Val Val 1105 1110 -1115Ile Ser Cys Leu Val Gly Arg Met Trp Leu Leu Glu Ile Phe Met Ala 1125 1130 1135 Ala Val Ser Thr Leu Asn Ile Thr Leu Arg Ser Tyr 1140 1145

<210> 4900

<211> 300

<212> PRT

<213> Homo sapiens

<400> 523

Met His Ser Leu Lys Lys Val Thr Phe Glu Asp Val Ala IIe Asp Phe 1 5 10 15

Thr Gln Glu Glu Trp Ala Met Met Asp Thr Ser Lys Arg Lys Leu Tyr 20 25 30

Arg Asp Val Met Leu Glu Asn Ile Ser His Leu Val Ser Leu Gly Tyr 35 40 45 Gln Ile Ser Lys Ser Tyr Ile Ile Leu Gln Leu Glu Gln Gly Lys Glu

	50					55					60				
Leu	Trp	Arg	Glu	Gly	Arg	Glu	Phe	Leu	Gln	Asp	Gln	Asn	Pro	Asp	Arg
65					70					75					80
Glu	Ser	Ala	Leu	Lys	Lys	Lys	His	Met	Пe	Ser	Met	His	Pro	He	Thr
				85					90					95	
Arg	Lys	Asp	Ala	Ser	Thr	Ser	Met	Thr	Met	Glu	Asn	Ser	Leu	He	Leu
			100					105					110		
Glu	Asp	Pro	Phe	Glu	Cys	Asn	Asp	Ser	Gly	Glu	Asp	Cys	Thr	His	Ser
		115					120					125			
Ser	Thr	lle	Thr	Gln	Arg	Leu	Leu	Thr	His	Ser	Gly	Lys	Lys	Pro	Tyr
	130					135					140				
Va]	Ser	Lys	Gln	Cys	Gly	Lys	Ser	Leu	Arg	Asn	Leu	Phe	Ser	Pro	Lys
145					150					155					160
Pro	His	Lys	Gln	He	His	Thr	Lys	Gly	Lys	Ser	Tyr	Gln	Cys	Asn	Leu
				165					170					175	
Cys	Glu	Lys	Ala	Tyr	Thr	Asn	Cys	Phe	Arg	Leu	Arg	Arg	His	Lys	Met
			180					185					190		
Thr	His	Thr	Gly	Glu	Arg	Pro	Tyr	Ala	Cys	His	Leu	Cys	G1 y	Lys	Ala
		195					200					205			
Phe	Thr	Gln	Cys	Ser	His	Leu	Arg	Arg	His	Glu	Lys	Thr	His	Thr	Gly
	210					215					220				
Glu	Arg	Pro	Tyr	Lys	Cys	His	Gln	Cys	Gly	Lys	Ala	Phe	Ile	Gln	Ser
225					230				•	235					240
Phe	Asn	Leu	Arg	Arg	His	Glu	Arg	Thr		Leu	Gly	Lys	Lys		Tyr
				245					250					255	
Glu	Cys	Asp	-	Ser	Gly	Lys	Ala		Ser	Gln	Ser	Ser	_	Phe	Arg
			260					265					270		
Gly	Asn		lle	lle	His	Thr		Glu	Lys	Pro	His		Cys	Leu	Leu
		275		,		_	280	_				285			
Cys	-	Lys	Ala	Phe	Ser	Leu	Ser	Ser	Asp	Leu	_				
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<210> 4901

<211> 1216

<212> PRT

## <213> Homo sapiens

<400	)> 52	24													
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Leu	Ser	Pro	Gln	His	Asn	Cys	Glu	Leu	Leu	Gln	Asn	Met	Glu	Gly	Ala
			20					25					30		
Ser	Ser	Met	Pro	Gly	Leu	Ser	Pro	Лsp	Gly	Pro	Gly	Ala	Ser	Ser	Gly
		35					40					45			
Pro	Gly	Val	Arg	Ala	Gly	Ser	Arg	Arg	Lys	He	Pro	Arg	Lys	Glu	Ala
	50					55					60				
Leu	Arg	Gly	Gly	Ser	Ser	Arg	Ala	Ala	Gly	Ala	Ala	Glu	Val	Arg	Pro
65					70					75					80
Gly	Val	Leu	Glu	Leu	Leu	Ala	Val	Val	Gln	Ser	Arg	Gly	Ser	Met	Leu
				85					90					95	
Ala	Pro	Gly	Leu	His	Met	Gln	Leu	Pro	Ser	Val	Pro	Thr	Gln	Gly	Arg
			100					105					110		
Ala	Leu	Thr	Ser	Lys	Arg	Leu	Gln	Val	Ser	Leu	Cys	Asp	Ile	Leu	Asp
		115					120					125			
Asp	Ser	Cys	Pro	Arg	Lys	Leu	Cys	Ser	Arg	Ser	Ala	Gly	Leu	Pro	Glu
	130					135					140				
Arg	Ala	Leu	Ala	Cys	Arg	Glu	Arg	Leu	Ala	Gly	Val	Glu	Glu	Val	Ser
145					150					155					160
Cys	Leu	Arg	Pro	Arg	Glu	Ala	Arg	Asp	Gly	Gly	Met	Ser	Ser	Pro	Gly
				165					170					175	
Cys	Asp	Arg	Arg	Ser	Pro	Thr	Leu	Ser	Lys	Glu	Glu	Pro	Pro	Gly	Arg
			180					185					190		
Pro	Leu	Thr	Ser	Ser	Pro	Asp	Pro	Val	Pro	Val	Arg	Val	Arg	Lys	Lys
		195					200					205			
Trp	Arg	Arg	Gln	Gly	Ala	His	Ser	Glu	Cys	Glu	Glu	Gly	Ala	Gly	Asp
	210					215					220				
Phe	Leu	Trp	Leu	Asp	Gln	Ser	Pro	Arg	Gly	Asp	Asn	Leu	Leu	Ser	Val
225					230					235					240
Gly	Asp	Pro	Pro	Gln	Val	Ala	Asp	Leu	Glu	Ser	Leu	Gly	Gly	Pro	Cys
				245					250					255	
Arg	Pro	Pro	Ser	Pro	Lys	Asp	Thr	Gly	Ser	Gly	Pro	Gly	Glu	Pro	Gly

			260					265					270		
Gly	Ser	Gly	Ala	Gly	Cys	Ala	Ser	G1 y	Thr	Glu	Lys	Phe	Gly	Tyr	Leu
		275					280					285			
Pro	Ala	Thr	Gly	Asp	Gly	Pro	Gln	Pro	Gly	Ser	Pro	Cys	Gly	Pro	Val
	290					295					300				
Gly	Phe	Pro	Val	Pro	Ser	Gly	G1 y	Glu	Ser	Leu	Ser	Ser	Ala	Ala	Gln
305					310					315					320
Ala	Pro	Pro	Gln	Ser	Ala	Ala	Leu	Cys	Leu	Gly	Ala	Ser	Ala	Gln	Ala
				325					330					335	
Ser	Ala	Glu	Gln	Gln	Glu	Ala	Val	Cys	Val	Val	Arg	Thr	Gly	Ser	Asp
			340					345					350		
Glu	Gly	Gln	Ala	Pro	Ala	Gln	Asp	Gln	Glu	Glu	Leu	Glu	Ala	Lys	Ala
		355					360					365			
Gln	Pro	Ala	Ser	Arg	Gly	Arg	Leu	Glu	Gln	Gly	Leu	Ala	Ala	Pro	Ala
	370					375					380				
Asp	Thr	Cys	Ala	Ser	Ser	Arg	Glu	Pro	Leu	Gly	Gly	Leu	Ser	Ser	Ser
385					390					395					400
Leu	Asp	Thr	Glu	Ala	Ser	Arg	Ala	Cys	Ser	Gly	Pro	Phe	Met	Glu	Gln
				405					410					415	
Arg	Arg	Ser	Lys	Gly	Thr	Lys	Asn	Leu	Lys	Lys	Gly	Pro	Val	Pro	Cys
			420					425					430		
Ala	Gln	Asp	Arg	Gly	Thr	Asp	Arg	Ser	Ser	Asp	Asn	Ser	His	Gln	Asp
		435					440					445			
Arg		Glu	Glu	Pro	Ser		Gl y	Gly	Cys	Pro	Arg	Leu	Glu	Glu	Val
	450					455					460				
Lys	lle	Pro	His	Gly	Val	Lys	Leu	Val	Cys	Tyr	Leu	Gly	Ser	Gly	
465				_						475					480
Val	He	GIn	Leu		Gly	Ala	He	Ser		Gly	GIn	Ala	Gly		GIn
	10	D		485	61			0.1	490			6.1	1	495	6
Leu	Pro	Pro		Leu	Glu	Val	Leu		Asp	Leu	Met	G1u	Val	Ser	Ser
D	С.	n	500	C1	A	1	Α	505	1	1		D	510	V. 1	C1
Pro	Ser		Ala	GIN	Arg	Leu		Arg	Lys	Lys	Arg		Met	val	Gin
C1	D	515	C1	C	C1	V - 1	520	C1 -	n	C .	n	525	C1	C1	ть
61 y		ATA	01 y	Cys	om	va 1 535	rne	GIN	rro	ser		ser	Gly	01 À	ınr
A10	530	Aen	Pro	Glv	Gly		Sor	Acn	Pro	Pho	540	Dro	Pro	Δνα	Sor

545					550					555					560
Gly	Ser	Leu	Λla	Leu 565	Gly	Asp	Pro	Ser	Ser 570	Asp	Pro	Ala	Cys	Ser 575	Gln
Ser	Gly	Pro	Met 580	Glu	Ala	Glu	Glu	Аsp 585	Ser	Leu	Pro	Glu	Gln 590	Pro	Glu
Asp	Ser	Ala 595	Gln	Leu	Gln	Gln	Glu 600	Lys	Pro	Ser	Leu	Tyr 605	He	Gly	Val
Arg	Gly 610	Thr	Val	Val	Arg	Ser 615	Met	Gln	Glu	Val	Leu 620	Trp	Thr	Arg	Leu
Arg 625	Glu	Leu	Pro	Asp	Pro 630	Val	Leu	Ser	Glu	Glu 635	Val	Val	G1u	Gly	Ile 640
Ala	Ala	Gly	He	Glu 645	Ala	Ala	Leu	Trp	Asp 650	Leu	Thr	Gln	Gly	Thr 655	Asn
G1 y	Arg	Tyr	Lys 660	Thr	Lys	Tyr	Arg	Ser 665	Leu	Leu	Phe	Asn	Leu 670	Arg	Asp
Pro	Arg	Asn 675	Leu	Asp	Leu	Phe	Leu 680	Lys	Val	Val	His	Gly 685	Asp	Val	Thr
Pro	Tyr 690	Asp	Leu	Val	Arg	Met 695	Ser	Ser	Met	Gln	Leu 700	Ala	Pro	G1n	Glu
Leu 705	Ala	Arg	Trp	Arg	Asp 710	Gln	Glu	Glu	Lys	Arg 715	Gly	Leu	Asn	Ile	Ile 720
Glu	Gln	Gln	Gln	Lys 725	Glu	Pro	Cys	Arg	Leu 730	Pro	Ala	Ser	Lys	Met 735	Thr
His	Lys	Gly	Glu 740	Val	Glu	He	Gln	Arg 745	Asp	Met	Asp	Gln	Thr 750	Leu	Thr
Leu	Glu	Asp 755	Leu	Val	Gly	Pro	Gln 760	Met	Phe	Met	Asp	Cys 765	Ser	Pro	Gln
Ala	Leu 770	Pro	He	Ala	Ser	Glu 775	Asp	Thr	Thr	Gly	Gln 780	His	Asp	His	His
Phe 785	Leu	Asp	Pro	Asn	Cys 790	His	He	Cys	Lys	Asp 795	Trp	Glu	Pro	Ser	Asn 800
Glu	Leu	Leu	Gly	Ser 805	Phe	Glu	Ala	Ala	Lys 810	Ser	Cys	Gly	Λsp	Asn 815	lle
Phe	Gln	Lys	Ala 820	Leu	Ser	Gln	Thr	Pro 825	Met	Pro	Ala	Pro	Glu 830	Met	Pro
lvs	Thr	Arg	Glu	Leu	Ser	Pro	Thr	Glu	Pro	Gln	Asp	Arø	Va1	Pro	Pro

		835					840					845			
Ser	Gly	Leu	His	Val	Pro	Λla	Ala	Pro	Thr	Lys	Ala	Leu	Pro	Cys	Leu
	850					855					860			•	
Pro	Pro	Trp	Glu	Gly	Val	Leu	Asp	Met	Phe	Ser	lle	Lys	Arg	Phe	Arg
865					870					875					880
Ala	Arg	Ala	Gln	Leu	Val	Ser	Gly	His	Ser	Cys	Arg	Leu	Val	Gln	Ala
				885					890					895	
Leu	Pro	Thr	Val	Пe	Arg	Ser	Ala	Gly	Cys	Ile	Pro	Ser	Asn	Ile	Val
			900					905					910		
Trp	Asp	Leu	Leu	Ala	Ser	He	Cys	Pro	Ala	Lys	Ala	Lys	Asp	Val	Cys
		915					920					925			
Val	Val	Arg	Leu	Cys	Pro	His	Gly	Ala	Arg	Asp	Thr	Gln	Asn	Cys	Arg
	930					935					940				
Leu	Leu	Tyr	Ser	Tyr	Leu	Asn	Asp	Arg	Gln	Arg	His	Gly	Leu	Ala	Ser
945					950					955					960
Va]	Glu	His	Met	Gly	Met	Val	Leu	Leu	Pro	Leu	Pro	Ala	Phe	Gln	Pro
				965					970					975	
Leu	Pro	Thr	Arg	Leu	Arg	Pro	Leu	Gly	Gly	Pro	Gly	Leu	Trp	Ala	Leu
			980					985					990		
Pro	Val	Ser	Pro	Leu	Leu	Ser	Pro	Gly	Leu	Glu	Val	Thr	His	Ser	Ser
		995					1000					1005			
Leu	Leu	Leu	Ala	Val	Leu	Leu	Pro	Lys	Glu	Gly	Leu	Pro	Asp	Thr	Ala
	1010				0	1015					1020				
Gly	Ser	Ser	Pro	Trp	Leu	Gly	Lys	Val	Gln	Lys	Met	Val	Ser	Phe	Asn
102	5				1030					1035					1040
Ser	Lys	Val	Glu	Lys	Arg	Tyr	Tyr	Gln	Pro	Asp	Asp	Arg	Arg	Pro	Asn
				1045					1050					1055	
Va]	Pro	Leu	Lys	Gly	Thr	Pro	Pro	Pro	Gly	Gly	Ala	Trp	Gln	Gln	Ser
			1060					1065					1070		
Gln	Gly	Arg	Gly	Ser	lle	Ala		Arg	Gly	lle			Trp	Gln	Λrg
		1075					1080					1085			
Pro	Pro	Arg	Gly	Arg		Arg	Leu	Trp	Pro	Glu	Pro	Glu	Asn	Trp	Gln
	1090					1095					1100				
		Gly	Arg			Trp	Pro	Pro			Gly	Leu	Arg	Gln	Ser
110	5				1110					1115					1120
C1.5	uic	Dnc	Tur	Carr	$M_{\odot} 1$	Alo	Dage	A 1 a	C1	Hic	C1u	Db.~	C1	A >= <=	$C1\cdots$

Gln His Phe His Arg Asp Ser Cys Pro His Gln Ala Leu Leu Arg His Leu Glu Ser Leu Ala Thr Met Ser His Gln Leu Gln Ala Leu Leu Cys Pro Gln Thr Lys Ser Ser 11e Pro Arg Pro Leu Gln Arg Leu Ser Ser Ala Leu Ala Ala Pro Glu Pro Pro Gly Pro Ala Arg Asp Ser Ser Leu Gly Pro Thr Asp Glu Ala Gly Ser Glu Cys Pro Phe Pro Arg Lys Ala 

<210> 4902

<211> 435

<212> PRT

<213> Homo sapiens

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Leu Val Leu Pro Glu Pro Asn Glu Ala Lys Pro Asp Asp Pro Ala Pro 115 120 125

Arg Pro Gly Gln His Ala Leu Thr Met Pro Ala Leu Glu Pro Ala Pro

	130					135					140				
Pro	Leu	Leu	Ala	Asp	Leu	Gly	Pro	Ala	Leu	Glu	Pro	Glu	Ser	Pro	Ala
145					150					155					160
Ala	Leu	Gly	Pro	Pro	Gly	Tyr	Leu	His	Ser	Ala	Pro	Gly	Pro	Ala	Pro
				165					170					175	
Ala	Pro	Gly	Glu	Glu	Pro	Pro	Pro	Gly	Thr	Val	Leu	Glu	Pro	Gln	Ser
			180					185					190		
Ala	Pro	Glu	Ser	Ser	Cys	Pro	Cys	Arg	Gly	Ser	Val	Lys	Asn	Gln	Pro
		195					200					205			
Ser	Glu	Glu	Leu	Pro	Asp	Met	Thr	Thr	Phe	Pro	Pro	Arg	Leu	Leu	Ala
	210					215					220				
Glu	Gln	Leu	Thr	Leu	Met	Asp	Ala	Glu	Leu	Phe	Lys	Lys	Va]	Val	Leu
225					230					235					240
Tyr	Glu	Cys	Leu	Gly	Cys	He	Trp	Gly	Gln	G1 y	His	Leu	Lys	Gly	Asn
				245					250					255	
Glu	His	Met	Ala	Pro	Thr	Val	Arg	Ala	Thr	He	Ala	His	Phe	Asn	Arg
			260					265					270		
Leu	Thr	Asn	Cys	Ile	Thr	Thr	Ser	Cys	Leu	Gly	Asp	His	Ser	Met	Arg
		275					280					285			
Ala	Arg	Asp	Arg	Ala	Arg	Va]	Val	Glu	His	Trp	Ile	Lys	Val	Ala	Arg
	290					295					300				
Glu	Cys	Leu	Ser	Leu	Asn	Asn	Phe	Ser	Ser	Va]	His	Val	Ile	Val	Ser
305					310					315					320
Ala	Leu	Cys	Ser	Asn	Pro	Пe	Gly	Gln	Leu	His	Lys	Thr	Trp	Ala	Gly
				325					330					335	
Val	Ser	Ser	Lys	Ser	Met	Lys	Glu	Leu	Lys	Glu	Leu	Cys	Lys	Lys	Asp
			340					345					350		
Thr	Ala	Val	Lys	Arg	Asp	Leu	Leu	He	Lys	Arg	Asp	Asp	Gly	Glu	Asn
		355					360					365			
Asn	Gly	Asn	Ser	Tyr	Arg	Lys	Leu	Ser	Pro	Gln	Arg	Pro	Cys	Glu	Val
	370					375					380				
Ala	Val	Val	Cys	11e	Thr	Leu	Tyr	Arg	Arg	Gly	Asn	Ser	Leu	Arg	Glu
385					390					395					400
Ala	Arg	Leu	Gln	Asp	Trp	Va]	Thr	His	Thr	Gly	Ser	Val	Asp	Leu	Gly
				405					410					415	
Gln	Trp	Arg	Gly	Ala	Leu	Arg	Trp	Pro	Pro	Arg	Arg	Gly	Thr	Pro	Arg

Glu Pro Arg <210> 4903 <211> 171 <212> PRT <213> Homo sapiens <400> 526 Met Gly Lys Ser Glu Ile Lys Arg Thr Gly Gly Phe Gly Ser Thr Asn Lys Gln Gly Lys Ala Ala Tyr Trp Val Asn Gln Ile Thr Asp Lys Cys Pro Thr Cys Glu Ile Thr Ile Gln Gly Lys Lys Phe Lys Gly Leu Val Asp Thr Arg Ala Asp Ile Ser Ile Ile Ser Leu Gln His Trp Pro Ser Thr Trp Pro Ile Gln Pro Thr Gln Phe Asn lle Val Gly Val Gly Glu Ala Pro Glu Val Tyr Gln Ser Ser Ser Val Leu Pro Cys Glu Gly Pro Asp Gly Gln Pro Glu Thr He Gln Pro He He Thr Ser Val Ser He Asn Leu Trp Gly Arg Asp Leu Leu Gln Gln Cys Arg Ala Gln Val Leu lle Pro Glu Gln Leu Tyr Ser Pro Gln Ser Gln His Met Met His Glu Met Gly Tyr Val Pro Gly Met Gly Leu Gln Lys Asn Leu Gln Gly Leu Lys Ser Ser Arg Gln Arg Leu Gly Asn Asn Phe

<211> 599

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<213> Homo sapiens
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Arg Ser Gln Leu Asp Gly Glu Gly Asp Gly Pro Leu Ser Asn Gln Leu
             20
                                 25
Ser Ala Ser Ser Thr 11e Asn Pro Val Pro Leu Val Gly Leu Gln Lys
         35
                             40
                                                  45
Pro Glu Met Ser Leu Pro Val Lys Pro Gly Gln Gly Asp Ser Glu Ala
                         55
Ser Ser Pro Phe Thr Pro Val Ala Asp Glu Asp Ser Val Val Phe Ser
65
                     70
                                          75
Lys Leu Thr Tyr Leu Gly Cys Ala Ser Val Asn Ala Pro Arg Ser Glu
                                     90
Val Glu Ala Leu Arg Met Met Ser Ile Leu Arg Ser Gln Cys Gln Ile
                                105
                                                     110
Ser Leu Asp Val Thr Leu Ser Val Pro Asn Val Ser Glu Gly Ile Val
        115
                            120
                                                 125
Arg Leu Leu Asp Pro Gln Thr Asn Thr Glu lle Ala Asn Tyr Pro Ile
                        135
Tyr Lys Ile Leu Phe Cys Val Arg Gly His Asp Gly Thr Pro Glu Ser
                    150
                                         155
                                                             160
Asp Cys Phe Ala Phe Thr Glu Ser His Tyr Asn Ala Glu Leu Phe Arg
                165
                                     170
lle His Val Phe Arg Cys Glu lle Gln Glu Ala Val Ser Arg lle Leu
                                                     190
                                185
Tyr Ser Phe Ala Thr Ala Phe Arg Arg Ser Ala Lys Gln Thr Pro Leu
        195
                            200
                                                 205
Ser Ala Thr Ala Ala Pro Gln Thr Pro Asp Ser Asp 11e Phe Thr Phe
                        215
Ser Val Ser Leu Glu Ile Lys Glu Asp Asp Gly Lys Gly Tyr Phe Ser
225
                    230
                                         235
                                                             240
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Ala Val Pro Lys Asp Lys Asp Arg Gln Cys Phe Lys Leu Arg Gln Gly

				245					250					255	
He	Asp	Lys	Lys	He	Val	He	Tyr	Val	Gln	Gln	Thr	Thr	Asn	Lys	Glu
			260					265					270		
Leu	Ala	Пe	Glu	Arg	Cys	Phe	Gly	Leu	Leu	Leu	Ser	Pro	Gly	Lys	Asp
		275					280					285			
Val	Arg	Asn	Ser	Asp	Met	His	Leu	Leu	Asp	Leu	Glu	Ser	Met	Gly	Lys
	290					295					300				
Ser	Ser	Asp	G1 y	Lys	Ser	Tyr	Val	He	Thr	Gly	Ser	Trp	Asn	Pro	Lys
305					310					315					320
Ser	Pro	His	Phe	Gln	Val	Val	Asn	Glu	Glu	Thr	Pro	Lys	Asp	Lys	Val
				325					330					335	
Leu	Phe	Met	Thr	Thr	Ala	Val	Asp	Leu	Val	He	Thr	Glu	Va]	Gln	Glu
			340					345					350		
Pro	Val	Arg	Phe	Leu	Leu	Glu	Thr	Lys	Val	Arg	Val	Cys	Ser	Pro	Asn
		355					360					365			
Glu	Arg	Leu	Phe	Trp	Pro	Phe	Ser	Lys	Arg	Ser	Thr	Thr	Glu	Asn	Phe
	370					375					380				
Phe	Leu	Lys	Leu	Lys	Gln	Ile	Lys	Gln	Arg	Glu	Arg	Lys	Asn	Asn	Thr
385					390					395					400
Asp	Thr	Leu	Tyr	Glu	Val	Val	Cys	Leu	Glu	Ser	Glu	Ser	Glu	Arg	Glu
				405					410					415	
Arg	Arg	Lys	Thr	Thr	Ala	Ser	Pro	Ser	Val	Arg	Leu	Pro	Gln	Ser	Gly
			420					425					430		
Ser	Gln	Ser	Ser	Val	He	Pro	Ser	Pro	Pro	Glu	Asp	Asp	Glu	Glu	Glu
		435					440					445			
Asp	Asn	Asp	Glu	Pro	Leu	Leu	Ser	Gly	Ser	Gly	Asp	Val	Ser	Lys	Glu
	450					455					460				
Cys	Ala	Glu	Lys	He	Leu	Glu	Thr	Trp	Gly	Glu	Leu	Leu	Ser	Lys	Trp
465					470					475					480
His	Leu	Asn	Leu		Val	Arg	Pro	Lys	G1n	Leu	Ser	Ser	Leu	Val	Arg
				485					490					495	
Asn	Gly	Val		Glu	Ala	Leu	Arg		Glu	Val	Trp	Gln		Leu	Ala
			500					505					510		
G1y	Cys		Asn	Asn	Asp	His		Val	Glu	Lys	Tyr	_	lle	Leu	He
		515					520					525			
Thr	Lys	Glu	Ser	Pro	Gln	Asp	Ser	Ala	He	Thr	Arg	Asp	He	Asn	Arg

Thr Phe Pro Ala His Asp Tyr Phe Lys Asp Thr Gly Gly Asp Gly Gln Asp Ser Leu Tyr Lys Ile Cys Lys Val Phe His Val Lys Lys Lys Asp Ser Ile Leu Ser Gly Gly Ser Thr Leu Lys Leu His Lys Lys Gln Leu Gln Ser Val Ile Cys Ile <210> 4905 <211> 1340 <212> PRT <213> Homo sapiens <400> 528 Met Leu Arg Lys Gly Ala Asn Arg Tyr Leu Thr Val Lys Lys Asp Gly Ser Glu Thr Ala His Ala Met Met Thr Cys Asn Leu Thr His Asn Thr Lys His Ala Val Arg Ser Leu Ile Gln Arg Phe Pro Val Thr Asn Lys Glu Arg Thr Glu Leu Leu Pro Lys Thr Glu Arg Gly Asn Val Phe Ala Val Glu Ala Glu Asn Arg Glu Met Ser Lys Thr Ser Gly Arg Leu Asn Asn Gly 11e Pro Gln 11e Pro Val Lys Arg Gly Glu Ser Glu Phe Asp Ser Phe Arg Gln Ser Leu Pro Val Phe Glu Lys Gln Glu Glu Ile Val Lys Ile Ile Lys Glu Asn Lys Val Val Leu Ile Val Gly Glu Thr Gly Ser Gly Lys Thr Thr Gln 11e Pro Gln Phe Leu Leu Asp Asp Cys 

Phe Lys Asn Gly Ile Pro Cys Arg Ile Phe Cys Thr Gln Pro Arg Arg

145					150					155					160
Leu	Ala	Ala	lle	Λla	Val	Ala	Glu	Arg	Val	Ala	Ala	Glu	Arg	Arg	Glu
				165					170					175	
Arg	He	Gly	Gln	Thr	He	Gly	Tyr	G1n	He	Arg	Leu	Glu	Ser	Arg	Val
			180					185					190		
Ser	Pro	Lys	Thr	Leu	Leu	Thr	Phe	Cys	Thr	Asn	Gly	Val	Leu	Leu	Arg
		195					200					205			
Thr	Leu	Met	Ala	Gly	Asp	Ser	Thr	Leu	Ser	Thr	Val	Thr	His	Val	He
	210					215					220				
Val	Asp	Glu	Val	His	Glu	Arg	Asp	Arg	Phe	Ser	Asp	Phe	Leu	Leu	Thr
225					230					235					240
Lys	Leu	Arg	Asp	Leu	Leu	Gln	Lys	His	Pro	Thr	Leu	Lys	Leu	He	Leu
				245					250					255	
Ser	Ser	Ala	Ala	Leu	Asp	Val	Asn	Leu	Phe	He	Arg	Tyr	Phe	Gly	Ser
			260					265					270		
Cys	Pro	Val	lle	Tyr	lle	Gln	Gly	Arg	Pro	Phe	Glu	Val	Lys	Glu	Met
		275					280					285			
Phe	Leu	Glu	Asp	Ile	Leu	Arg	Thr	Thr	G1 y	Tyr	Thr	Asn	Lys	Glu	Met
	290					295					300				
Leu	Lys	Tyr	Lys	Lys	Glu	Lys	Gln	Gln	Glu	Glu	Lys	Gln	Gln	Thr	Thr
305					310					315					320
Leu	Thr	Glu	Trp	Tyr	Ser	Ala	Gln	Glu	Asn	Ser	Phe	Lys	Pro	Glu	Ser
				325					330					335	
Gln	Arg	Gln	Arg	Thr	Val	Leu	Asn	Val	Thr	Asp	Glu	Tyr	Asp	Leu	Leu
			340					345					350		
Asp	Asp	Gly	Gly	Лsp	Ala	Val	Phe	Ser	Gln	Leu	Thr	Glu	Lys	Asp	Val
		355					360					365			
Asn	Cys	Leu	Glu	Pro	Trp	Leu	He	Lys	Glu	Met	Asp	Ala	Cys	Leu	Ser
	370			`		375					380				
Asp	lle	Trp	Leu	His	Lys	Asp	11e	Asp	Ala	Phe	Ala	Gln	Val	Phe	His
385					390					395					400
Leu	He	Leu	Thr	Glu	Asn	Val	Ser	Va]	Asp	Tyr	Arg	His	Ser	Glu	Thr
				405					410					415	
Ser	Ala	Thr	Ala	Leu	Met	Val	Ala	Ala	Gly	Arg	Gly	Phe	Ala	Ser	Gln
			420					425					430		
Val	Glu	Gln	Leu	He	Ser	Met	Gly	Ala	Asn	Val	His	Ser	Lys	Ala	Ser

		435					440					445			
Asn	Gly	Trp	Met	Ala	Leu	Asp	Trp	Ala	Lys	His	Phe	Gly	Gln	Thr	Glu
	450					455					460				
He	Val	Asp	Leu	Leu	Glu	Ser	Tyr	Ser	Ala	Ser	Leu	Glu	Phe	Gly	Asn
465					470					475					480
Leu	Asp	Glu	Ser	Ser	Leu	Val	Gln	Thr	Asn	G1 y	Ser	Asp	Leu	Ser	Ala
				485					490					495	
Glu	Asp	Arg	Glu	Leu	Leu	Lys	Ala	Tyr	His	His	Ser	Phe	Asp	Asp	G]u
			500					505					510		
Lys	Val	Asp	Leu	Asp	Leu	Ile	Met	His	Leu	Leu	Tyr	Asn	Ile	Cys	His
		515					520					525			
Ser	Cys	Asp	Ala	Gly	Ala	Val	Leu	lle	Phe	Leu	Pro	Gly	Tyr	Asp	Glu
	530					535					540				
He	Val	Gly	Leu	Arg	Asp	Arg	lle	Leu	Phe	Asp	Asp	Lys	Arg	Phe	Ala
545					550					555					560
Asp	Asn	Thr	His	Arg	Tyr	Gln	Val	Phe	Met	Leu	His	Ser	Asn	Met	Gln
				565					570					575	
Thr	Ser	Asp	Gln	Lys	Lys	Val	Leu	Lys	Asn	Pro	Pro	Ala	Gly	Val	Arg
			580					585					590		
Lys	lle	lle	Leu	Ser	Thr	Asn	He	Ala	Glu	Thr	Ser	lle	Thr	Val	Asn
		595					600					605			
Asp	Val	Val	Phe	Val	Ile	Asp	Ser	Gly	Lys	Val	Lys	Glu	Lys	Ser	Phe
	610					615					620				
Asp	Ala	Leu	Asn	Phe	Val	Thr	Met	Leu	Lys	Met	Val	Trp	He	Ser	Lys
625					630					635					640
Ala	Ser	Ala	lle	Gln	Arg	Lys	Gly	Arg	Ala	Gly	Arg	Cys	Arg	Pro	Gly
				645					650					655	
lle	Cys	Phe	Arg	Leu	Phe	Ser	Arg	Leu	Arg	Phe	Gln	Asn	Met	Leu	Glu
			660					665					670		
Phe	Gln	Thr	Pro	Glu	Leu	Leu	Arg	Met	Pro	Leu	Gln	Glu	Leu	Cys	Leu
		675					680					685			
His	Thr	Lys	Leu	Leu	Ala	Pro	Val	Asn	Cys	Pro	He	Ala	Asp	Phe	Leu
	690					695					700				
Met	Lys	Ala	Pro	Glu	Pro	Pro	Pro	Ąla	Leu	lle	Val	Arg	Asn	Ala	Val
705					710					715					720
Gln	Met	Leu	Lys	Thr	lle	Asp	Ala	Met	Asp	Thr	Trp	Glu	Asp	Leu	Thr

				725					730					735	
Glu	Leu	Gly	Tyr	His	Leu	Ala	Asp	Leu	Pro	Val	Glu	Pro	His	Leu	Gly
			740					745					750		
Lys	Met	Val	Leu	Cys	Ala	Val	Val	Leu	Lys	Cys	Leu	Asp	Pro	Ile	Leu
		755					760					765			
Thr	He	Ala	Cys	Thr	Leu	Ala	Tyr	Arg	Asp	Pro	Phe	Val	Leu	Pro	Thr
	770					775					780				
G1n	Ala	Ser	Gln	Lys	Arg	Ala	Ala	Met	Leu	Cys	Arg	Lys	Arg	Phe	Thr
785					790					795					800
Ala	Gly	Ala	Phe	Ser	Asp	His	Met	Ala	Leu	Leu	Arg	Ala	Phe	Gln	Ala
				805					810					815	
Trp	Gln	Lys	Ala	Arg	Ser	Asp	Gly	Trp	Glu	Arg	Ala	Phe	Cys	Glu	Lys
			820					825					830		
Asn	Phe	Leu	Ser	Gln	Ala	Thr	Met	Glu	He	He	He	Gly	Met	Arg	Thr
		835					840					845			
Gln	Leu	Leu	Gly	Gln	Leu	Arg	Ala	Ser	Gly	Phe	Val	Arg	Ala	Arg	Gly
	850					855					860				
Gly	Gly	Asp	Ile	Arg	Asp	Val	Asn	Thr	Asn	Ser	Glu	Asn	Trp	Ala	Val
865					870					875					880
Val	Lys	Ala	Ala	Leu	Val	Ala	Gly	Met	Tyr	Pro	Asn	Leu	Val	His	Val
				885					890					895	
Asp	Arg	Glu	Asn	Leu	Val	Leu	Thr	Gly	Pro	Lys	Glu	Lys	Lys	Val	Arg
			900					905					910		
Phe	His	Pro	Ala	Ser	Val	Leu	Ser	Gln	Pro	Gln	Tyr	Lys	Lys	lle	Pro
		915					920					925			
Pro	Ala	Asn	Gly	Gln	Ala	Ala	Ala	He	Lys	Ala	Leu	Pro	Thr	Asp	Trp
	930					935					940				
Leu	lle	Tyr	Asp	Glu	Met	Thr	Arg	Ala	His	Arg	lle	Ala	Asn	lle	Arg
945					950					955					960
Cys	Cys	Ser	Ala	Val	Thr	Pro	Val	Thr	lle	Leu	Val	Phe	Cys	Gly	Pro
				965					970					975	
Ala	Arg	Leu	Ala	Ser	Asn	Ala	Leu	Gln	Glu	Pro	Ser	Ser	Phe	Arg	Val
			980					985					990		
Asp	Gly	He	Pro	Asn	Asp	Ser	Ser	Asp	Ser	Glu	Met	G1u	Asp	Lys	Thr
		995					1000					1005			
Thr	Ala	Asn	Leu	Ala	Ala	Leu	Lys	Leu	Asp	Glu	Trp	Leu	His	Phe	Thr

]	1010				]	1015				]	1020				
Leu	Glu	Pro	Glu	Ala	Ala	Ser	Leu	Leu	Leu	Gln	Leu	Arg	Gln	Lys	Trp
1025	5			1	030				]	035				]	1040
His	Ser	Leu	Phe	Leu	Arg	Arg	Met	۸rg	Ala	Pro	Ser	Lys	Pro	Trp	Ser
			]	045				!	1050				]	1055	
Gln	Val	Asp	Glu	Ala	Thr	lle	Arg	Ala	11e	He	Ala	Val	Leu	Ser	Thr
			1060				]	065					1070		
Glu	Glu	Gln	Ser	Ala	Gly	Leu	Gln	Gln	Pro	Ser	Gly	Ile	Gly	Gln	Arg
		1075				]	1080					1085			
Pro	Arg	Pro	Met	Ser	Ser	Glu	Glu	Leu	Pro	Leu	Ala	Ser	Ser	Trp	Arg
	1090					1095					1100				
Ser	Asn	Asn	Ser	Arg	Lys	Ser	Ser	Ala	Asp	Thr	Glu	Phe	Ser	Asp	Glu
1105	5			]	1110				]	1115					1120
Cys	Thr	Thr	Ala	Glu	Arg	Val	Leu	Met	Lys	Ser	Pro	Ser	Pro	Ala	Leu
			,	1125					1130					1135	
His	Pro	Pro	Gln	Lys	Tyr	Lys	Asp	Arg	Gly	Ile	Leu	His	Pro	Lys	Arg
			1140					1145					1150		
G]y	Thr	Glu	Asp	Arg	Ser	Asp	Gln	Ser	Ser	Leu	Lys	Ser	Thr	Asp	Ser
		1155					1160					1165			
Ser	Ser	Tyr	Pro	Ser	Pro	Cys	Ala	Ser	Pro	Ser	Pro	Pro	Ser	Ser	Gly
	1170					1175					1180				
Lys	G]y	Ser	Lys	Ser	Pro	Ser	Pro	Arg	Pro	Asn	Met	Pro	Val	Arg	Tyr
118	5				1190					1195					1200
Phe	He	Met	Lys	Ser	Ser	Asn	Leu	Arg	Asn	Leu	Glu	He	Ser	Gln	Gln
				1205					1210					1215	
Lys	Gly	lle	Trp	Ser	Thr	Thr	Pro	Ser	Asn	Glu	Arg	Lys	Leu	Asn	Arg
			1220					1225					1230		
Ala	Phe	Trp	Glu	Ser	Ser	He	Va]	Tyr	Leu	Val	Phe	Ser	Val	Gln	Gly
		1235					1240					1245			
Ser	Gly	His	Phe	Gln	Gly	Phe	Ser	Arg	Met	Ser	Ser	Glu	He	Gly	Arg
	1250					1255					1260				
Glu	Lys	Ser	G1n	Asp	Trp	Gly	Ser	Ala	Gly	Leu	Gly	Gly	Val	Phe	Lys
126	5				1270					1275					1280
Val	Glu	Trp	He	Arg	Lys	Glu	Ser	Leu	Pro	Phe	Gln	Phe	Ala	His	His
				1285					1290					1295	

Leu Leu Asn Pro Trp Asn Asp Asn Lys Lys Val Gln Ile Ser Arg Asp Gly Gln Glu Leu Glu Pro Gln Val Gly Glu Gln Leu Leu Gln Leu Trp Glu Arg Leu Pro Leu Gly Glu Lys Asn Thr Thr Asp 

<210> 4906

<211> 574

<212> PRT

<213> Homo sapiens

<400> 529 Met Thr Ala Gly Ser Val Cys Val Pro Gln lle lle Pro Leu Arg Val Pro Gln Pro Gly Lys Ala Asn His Glu Ile Asp Asn Asn Thr Leu Leu Glu Met Lys Ser Asp Thr Pro Asp Val Asn Ile Tyr Tyr Thr Leu Asp Gly Ser Lys Pro Glu Phe Leu Lys Arg Ile Gly Tyr Gly Glu Asn Asn Thr Phe Lys Tyr lle Lys Pro lle Thr Leu Pro Asp Gly Lys Ile Gln Val Lys Ala Ile Ala Val Ser Lys Asp Cys Arg Gln Ser Gly Ile Val Thr Lys Val Phe His Val Asp Tyr Glu Pro Pro Asn Ile Val Ser Pro Glu Asp Asn Val Glu Asn Val Leu Lys Asp Ser Ser Arg Gln Glu Phe Lys Asn Gly Phe Val Gly Ser Lys Leu Lys Lys Lys Tyr Lys Asn Ser

Glu Asn Gln Arg Ser Trp Asn Val Asn Leu Arg Lys Phe Pro Glu Ser Pro Leu Glu lle Pro Ala Tyr Gly Gly Gly Ser Gly Ser Arg Pro Pro 

Thr	Arg	Gln	Ser	Gln	Ser	Pro	Gly	Phe	Ala	His	Val	Ser	G1 y	Gln	Lys
			180					185					190		
Cys	Leu	Thr	Ser	Thr	Glu	He	Met	Arg	He	Gln	Arg	Glu	Thr	Asp	Phe
		195					200					205			
Leu	Lys	Cys	Ala	His	Cys	Leu	Ala	Pro	Arg	Pro	Ser	Asp	Pro	Phe	Ala
	210					215					220				
Arg	Phe	Cys	Gln	Glu	Cys	Gly	Ser	Pro	Val	Pro	Pro	lle	Phe	G1 y	Cys
225					230					235					240
Arg	Leu	Pro	Pro	Pro	Glu	Gly	Ala	Gln	Met	Gly	Leu	Cys	Ala	Glu	Cys
				245					250					255	
Arg	Ser	Leu	Val	Pro	Met	Asn	Thr	Pro	lle	Cys	Val	Val	Cys	Glu	Ala
			260					265					270		
Pro	Leu	Ala	Leu	Gln	Leu	Gln	Pro	Gln	Ala	Ser	Leu	His	Leu	Lys	Glu
		275					280					285			
Lys	Val	He	Cys	Arg	Ala	Cys	Gly	Thr	Gly	Asn	Pro	Ala	His	Leu	Arg
	290					295					300				
Tyr	Cys	Val	Thr	Cys	Glu	Gly	Ala	Leu	Pro	Ser	Ser	Gln	Glu	Ser	Met
305					310					315					320
Cys	Ser	Gly	Asp	Lys	Ala	Pro	Pro	Pro	Pro	Thr	Gln	Lys	Gly	Gly	Thr
				325					330					335	
He	Ser	Cys	Tyr	Arg	Cys	Gly	Arg	Trp	Asn	Leu	Trp	Glu	Ala	Ser	Phe
			340					345					350		
Cys	Gly	Trp	Cys	Gly	Ala	Met	Leu	Gly	He	Pro	Ala	Gly	Cys	Ser	Val
		355					360					365			
Cys	Pro	Lys	Cys	Gly	Ala	Ser	Asn	His	Leu	Ser	Ala	Arg	Phe	Cys	Gly
	370					375					380				
Ser	Cys	Gly	He	Cys	Val	Lys	Ser	Leu	Val	Lys	Leu	Ser	Leu	Asp	Arg
385					390					395					400
Ser	Leu	Ala	Leu		Ala	Glu	Glu	Pro	Arg	Pro	Phe	Ser	Glu	Ser	Leu
				405					410					415	
Asn	He	Pro		Pro	Arg	Ser	Asp		Gly	Thr	Lys	Arg	Asp	He	Gly
			420					425					430		
Thr	Gln		Va]	Gly	Leu	Phe	Tyr	Pro	Ser	G1 y	Lys		Leu	Ala	Lys
		435					440					445			
Lys		Gln	Glu	Leu	Ala		Gln	Lys	Gln	Arg		Glu	Lys	Met	Ser
	450					455					460				

Asp His Lys Pro Leu Leu Thr Ala Ile Ser Pro Gly Arg Gly Tyr Trp 470 475 480 Arg Arg Gln Leu Asp His Ile Ser Ala His Leu Arg Cys Tyr Ala Gln 485 490 Asn Asn Pro Glu Phe Arg Ala Leu Ile Ala Glu Pro Arg Met Gly Lys 500 505 510 Leu lle Ser Ala Thr Val His Glu Asp Gly Cys Glu Val Ser Ile Arg 520 525 Leu Asn Tyr Ser Gln Val Ser Asn Lys Val Arg Lys Leu Arg Leu Arg 530 535 540 Glu Val Lys Gln Pro Ala Ser Ser Lys Gly Thr Lys Leu Val Ser Gly 550 555 560 Arg Pro Arg lle His Thr Trp Gln Pro Glu Thr Phe Pro Ser 570 565

<210> 4907

<211> 534

<212> PRT

<213> Homo sapiens

<400> 530

Met Gly Val Pro Thr Ala Val Ser Ala Thr Pro Val Arg Ala Asp Ala 1 5 10 15

Ser Ser Lys Pro Gln Pro Leu Leu Gln Ser Gln Pro His Leu Phe Phe 20 25 30

Phe Pro Lys Leu Leu Ser Arg Leu Leu Gly Ser Pro Leu Pro Val His
35 40 45

Ser Ala Gly Pro Gly Pro Leu Leu Thr Arg Met Pro Gln Ala Thr Thr 50 55 60

Val Ser Leu Arg Leu Gly Ser Trp Ser Leu Thr Glu Asp Arg Asp Val
65 70 75 80

Ser Gly Glu Trp Pro Arg Ala Phe Pro Asp Thr Pro Pro Gly Met Thr
85 90 95

Thr Ser Val Phe Pro Val Ala Asp Ala Cys His Ser Val Lys Ser Leu 100 105 110

Gln	Arg	Gln	Pro	Gly	Ala	Ser	Pro	Ser	Gln	Glu	Arg	Lys	Pro	Thr	Gly
		115					120					125			
Val	Ser	Val	He	Tyr	Trp	Glu	Arg	Leu	Leu	Leu	Gly	Ser	Arg	Ser	Asp
	130					135					140				
Gln	Ala	Ser	He	Ser	Leu	Arg	Leu	Thr	Ser	Pro	Leu	Arg	Pro	Pro	Lys
145					150					155					160
Ser	Ser	Arg	Pro	Arg	Glu	Lys	Thr	Phe	Thr	Glu	Tyr	Arg	Val	Pro	Gly
				165					170					175	
Arg	Gln	Pro	Arg	Thr	Pro	Glu	Arg	Gln	Lys	Pro	Cys	Ala	Gln	Glu	Val
			180					185					190		
Pro	Gly	Arg	Ala	Phe	Gly	Asn	Ala	Ser	Asp	Leu	Lys	Ala	Ala	Ser	Gly
		195					200					205			
Gly	Arg	Asp	Arg	Arg	Met	Gly	Ala	Λla	Trp	Gln	Glu	Pro	His	Arg	Leu
	210					215					220				
Leu	Gly	Gly	Gln	Glu	Pro	Ser	Thr	Trp	Asp	Glu	Leu	Gly	Glu	Ala	Leu
225					230					235					240
His	Ala	Gly	Glu	Lys	Ser	Phe	Glu	Cys	Arg	Ala	Cys	Ser	Lys	Val	Phe
				245					250					255	
Val	Lys	Ser	Ser	Asp	Leu	Leu	Lys	His	Leu	Arg	Thr	His	Thr	Gly	Glu
			260					265					270		
Arg	Pro	Tyr	Glu	Cys	Thr	Gln	Cys	Gly	Lys	Ala	Phe	Ser	Gln	Thr	Ser
		275					280					285			
His	Leu	Thr	GIn	His	Gln	Arg	He	His	Ser	G1 y	Glu	Thr	Pro	Tyr	Ala
	290					295					300				
Cys	Pro	Val	Cys	G1 y	Lys	Ala	Phe	Arg	His		Ser	Ser	Leu	Val	Arg
305					310					315					320
His	Gln	Arg	He	His	Thr	Ala	Glu	Lys		Phe	Arg	Cys	Ser		Cys
				325					330					335	
Gly	Lys	Ala		Ser	His	Gly	Ser		Leu	Ser	Gln	His		Lys	lle
			340					345					350		
His	Ala		Gly	Arg	Pro	Tyr		Cys	Ala	Gln	Cys	Gly	Arg	Arg	Phe
		355					360					365			
Cys		Asn	Ser	His	Leu		Gln	His	Glu	Arg		His	Thr	Gly	Glu
_	370	-1				375					380				
	Pro	Phe	Val	Cys		Leu	Arg	Gly	Ala		Phe	Ser	Gln	Gly	
385					390					395					400

Ser Leu Phe Leu His Gln Arg Val His Thr Gly Glu Lys Pro Phe Ala Cys Ala Gln Cys Gly Arg Ser Phe Ser Arg Ser Ser Asn Leu Thr Gln His Gln Leu Leu His Thr Gly Glu Arg Pro Phe Arg Cys Val Asp Cys Gly Lys Gly Phe Ala Lys Gly Ala Val Leu Leu Ser His Arg Arg 11e His Thr Gly Glu Lys Pro Phe Val Cys Thr Gln Cys Gly Arg Ala Phe Arg Glu Arg Pro Ala Leu Leu His His Gln Arg Ile His Thr Thr Glu Lys Thr Asn Ala Ala Ala Pro Asp Cys Thr Pro Gly Pro Gly Phe Leu Gln Gly His His Arg Lys Val Arg Arg Gly Gly Lys Pro Ser Pro Val Leu Lys Pro Ala Lys Val 

<210> 4908

<211> 1300

<212> PRT

<213> Homo sapiens

<400> 531

 Met
 Pro
 Pro
 Asp
 Val
 1le
 Arg
 Asp
 Ile
 Leu
 Glu
 Gly
 Val
 Leu
 Arg
 Leu

 Met
 Gly
 1le
 Asp
 Thr
 Ser
 Trp
 Val
 Ser
 Met
 Lys
 Ser
 Phe
 Leu
 Ala

 Lys
 Arg
 Gly
 Val
 Arg
 Glu
 Asp
 Ile
 Ala
 Thr
 Phe
 Asp
 Ile

 Ser
 Lys
 Glu
 Ile
 Asp
 Ile
 Ala
 Ile
 Ala
 Ala
 Ala
 Arg
 Asp
 Ile

 Ser
 Lys
 Glu
 Ile
 Asp
 Ile
 Ala
 Ile
 A

Pro	Leu	Ala	Ala	Trp	Val	Lys	Ala	Asn	He	Gln	Tyr	Ser	His	Val	Leu
				85					90					95	
Glu	Arg	He	His	Pro	Leu	Glu	Thr	Glu	Gln	Ala	Gly	Leu	Glu	Ser	Asn
			100					105					110		
Leu	Lys	Lys	Thr	Glu	Asp	Arg	Lys	Arg	Lys	Leu	Glu	Glu	Leu	Leu	Asn
		115					120					125			
Ser	Val	Gly	Gln	Lys	Val	Ser	G]u	Leu	Lys	Glu	Lys	Phe	Gln	Ser	Arg
	130					135					140				
Thr	Ser	Glu	Ala	Ala	Lys	Leu	Glu	Ala	Glu	Val	Ser	Lys	Ala	Gln	Glu
145					150					155					160
Thr	He	Lys	Ala	Ala	Glu	Va]	Leu	11e	Asn	Gln	Leu	Asp	Arg	Glu	His
				165					170					175	
Lys	Arg	Trp	Asn	Ala	Gln	Val	Val	Glu	Пe	Thr	Glu	Glu	Leu	Ala	Thr
			180					185					190		
Leu	Pro	Lys	Arg	Ala	Gln	Leu	Ala	Ala	Ala	Phe	He	Thr	Tyr	Leu	Ser
		195					200					205			
Ala	Ala	Pro	Glu	Ser	Leu	Arg	Lys	Thr	Cys	Leu	Glu	Glu	Trp	Thr	Lys
	210					215					220				
Ser	Ala	Gly	Leu	Glu	Lys	Phe	Asp	Leu	Arg	Arg	Phe	Leu	Cys	Thr	Glu
225					230					235					240
Ser	Glu	Gln	Leu	He	Trp	Lys	Ser	Glu	Gly	Leu	Pro	Ser	Asp	Asp	Leu
				245					250					255	
Ser	lle	Glu	Asn	Ala	Leu	Val	Пe	Leu	Gln	Ser	Arg	Val	Cys	Pro	Phe
			260					265					270		
Leu	He	Asp	Pro	Ser	Ser	Gln	Ala	Thr	Glu	Trp	Leu	Lys	Thr	His	Leu
		275					280					285			
Lys	Asp	Ser	Arg	Leu	Glu	Val	He	Asn	Gln	GIn	Asp	Ser	Asn	Phe	He
	290					295					300				
Thr	Ala	Leu	Glu	Leu	Ala	Val	Arg	Phe	G1 y	Lys	Thr	Leu	He	He	G1n
305					310					315					320
Glu	Met	Asp	Gly	Val	Glu	Pro	Val	Leu	Tyr	Pro	Leu	Leu	Arg	Arg	Asp
				325					330					335	
Leu	Val	Ala		Gly	Pro	Arg	Tyr		Val	GIn	He	Gly	Asp	Lys	He
			340					345					350		
lle	Asp		Asn	G1u	Glu	Phe		Leu	Phe	Leu	Ser		Arg	Asn	Pro
		355					360					365			

Asn	Pro	Phe	He	Pro	Pro	Asp	Ala	Ala	Ser	He	Val	Thr	Glu	Val	Asn
	370					375					380				
Phe	Thr	Thr	Thr	Arg	Ser	Gly	Leu	Arg	Gly	Gln	Leu	Leu	Ala	Leu	Thr
385					390					395					400
He	Gln	His	Glu	Lys	Pro	Asp	Leu	Glu	Glu	Gln	Lys	Thr	Lys	Leu	Leu
				405					410					415	
Gln	Gln	Glu	Glu	Asp	Lys	Lys	He	Gln	Leu	Ala	Lys	Leu	Glu	Glu	Ser
			420					425					430		
Leu	Leu	Glu	Thr	Leu	Ala	Thr	Ser	Gln	Gly	Asn	He	Leu	Glu	Asn	Lys
		435					440					445			
Asp	Leu	He	Glu	Ser	Leu	Asn	Gln	Thr	Lys	Ala	Ser	Ser	Ala	Leu	He
	450					455					460				
Gln	Glu	Ser	Leu	Lys	Glu	Ser	Tyr	Lys	Leu	Gln	He	Ser	Leu	Asp	Gln
465					470					475					480
Glu	Arg	Asp	Ala	Tyr	Leu	Pro	Leu	Ala	Glu	Ser	Ala	Ser	Lys	Met	Tyr
				485					490					495	
Phe	lle	He	Ser	Asp	Leu	Ser	Lys	lle	Asn	Asn	Met	Tyr	Arg	Phe	Ser
			500					505					510		
Leu	Ala	Ala	Phe	Leu	Arg	Leu	Phe	Gln	Arg	Ala	Leu	Gln	Asn	Lys	Gln
		515					520					525			
Asp		Glu	Asn	Thr	Glu	Gln	Arg	He	Gln	Ser		He	Ser	Ser	Leu
	530					535					540				
Gln	His	Met	Val	Tyr		Tyr	He	Cys	Arg		Leu	Phe	Lys	Ala	
545					550					555					560
Gln	Leu	Met	Phe		Leu	His	Phe	Val		Gly	Met	His	Pro		Leu
				565					570					575	
Phe	Gln	G]u		G] u	Trp	Asp	Thr		Thr	Gly	Val	Val		Gly	Asp
			580			_		585					590	-	
Met	Leu		Lys	Ala	Asp	Ser		GIn	Lys	He	Arg		GIn	Leu	Pro
-	m.	595		0.1	0.1		600	m		,, ,		605		,	
Ser		He	Asp	GIn	Glu	Arg	Ser	Trp	Ala	Val		Thr	Leu	Lys	He
. 1	610	D	C	,	Tr.	615	m.			131	620				
	Leu	Pro	Ser	Leu		Gln	Ihr	Leu	Cys		Glu	Asp	ATa	Ala	
625	Δ.,	TI	T.	т.	630		C	м .	C.	635	C1	C1	131	D.	640
rp	Arg	mr	ıyr		Asn	Asn	Ser	met		Ыu	GIn	ьIu	Phe		5er
				645					650					655	

Ile	Leu	Ala	Lys	Lys	Val	Ser	Leu	Phe	Gln	Gln	Ile	Leu	Val	Val	Gln
			660					665					670		
Ala	Leu	Arg	Pro	Asp	Arg	Leu	Gln	Ser	Λla	Met	Ala	Leu	Phe	Ala	Cys
		675					680					685			
Lys	Thr	Leu	Gly	Leu	Lys	Glu	Val	Ser	Pro	Leu	Pro	Leu	Asn	Leu	Lys
	690					695					700				
Arg	Leu	Tyr	Lys	Glu	Thr	Leu	Glu	He	Glu	Pro	11e	Leu	He	11 e	He
705					710					715					720
Ser	Pro	Gly	Ala	Asp	Pro	Ser	Gln	Glu	Leu	Gln	Glu	Leu	Ala	Asn	Ala
				725					730					735	
Glu	Arg	Ser	Gly	Glu	Cys	Tyr	His	Gln	Val	Ala	Met	Gly	Gln	Gly	Gln
			740					745					750		
Ala	Asp	Leu	Ala	11e	G]n	Met	Leu	Lys	Glu	Cys	Ala	Arg	Asn	Gly	Asp
		755					760					765			
Trp	Leu	Cys	Leu	Lys	Asn	Leu	His	Leu	Val	Val	Ser	Trp	Leu	Pro	Val
	770					775					780				
Leu	Glu	Lys	Glu	Leu	Asn	Thr	Leu	Gln	Pro	Lys	Asp	Thr	Phe	Arg	Leu
785					790					795					800
Trp	Leu	Thr	Ala	Glu	Val	His	Pro	Asn	Phe	Thr	Pro	lle	Leu	Leu	Gln
				805					810					815	
Ser	Ser	Leu	Lys	He	Thr	Tyr	Glu	Ser	Pro	Pro	Gly	Leu	Lys	Lys	Asn
			820					825					830		
Leu	Met	Arg	Thr	Tyr	Glu	Ser	Trp	Thr	Pro	Glu	Gln	He	Ser	Lys	Lys
		835					840					845			
Asp	Asn	Thr	His	Arg	Ala	His	Ala	Leu	Phe	Ser	Leu	Ala	Trp	Phe	His
	850					855					860				
Ala	Ala	Cys	Gln	Glu	Arg	Arg	Asn	Tyr	He	Pro	G]n	Gly	Trp	Thr	Lys
865					870					875					880
Phe	Tyr	Glu	Phe	Ser	Leu	Ser	Asp	Leu	Arg	Ala	GI y	Tyr	Asn	He	He
				885					890					895	
Asp	Arg	Leu	Phe	Asp	Gly	Ala	Lys	Asp	Val	Gln	Trp	Glu	Phe	Va]	His
			900					905					910		
Gly	Leu		G] u	Asn	Ala	He	Tyr	Gly	Gly	Arg	Нe	Asp	Asn	Tyr	Phe
		915	•				920					925			
Acn	1	Ance	Val	Lou	C1n	San	Tyrn	1	Luc	C1n	Dho	Dho	A	Sar	San

	930					935					940				
Val	He	Asp	Val	Phe	Asn	Gln	Arg	Asn	Lys	Lys	Ser	He	Phe	Pro	Tyr
945					950					955					960
Ser	Val	Ser	Leu	Pro	Gln	Ser	Cys	Ser	He	Leu	Asp	Tyr	Arg	Ala	Val
				965					970					975	
He	Glu	Lys	lle	Pro	Glu	Asp	Asp	Lys	Pro	Ser	Phe	Phe	Gly	Leu	Pro
			980					985					990		
Ala	Asn	Ile	Ala	Arg	Ser	Ser	Gln	Arg	Met	lle	Ser	Ser	Gln	Val	He
		995				]	000				]	005			
Ser	Gln	Leu	Arg	Ile	Leu	Gly	Arg	Ser	Ile	Thr	Ala	Gly	Ser	Lys	Phe
]	1010				1	1015				:	1020				
Asp	Arg	Glu	He	Trp	Ser	Asn	Glu	Leu	Ser	Pro	Val	Leu	Asn	Leu	Trp
1025	5			1	1030				]	1035					1040
Lys	Lys	Leu	Asn	Gln	Asn	Ser	Asn	Leu	11e	His	Gln	Lys	Val	Pro	Pro
			]	1045					1050					1055	
Pro	Asn	Asp	Arg	Gln	Gly	Ser	Pro	He	Leu	Ser	Phe	He	He	Leu	Glu
		1	1060				1	1065					1070		
Gln	Phe	Asn	Ala	Ile	Arg	Leu	Val	Gln	Ser	Val	His	Gln	Ser	Leu	Ala
		1075				•	1080					1085			
Ala	Leu	Ser	Lys	Val	lle	Arg	Gly	Thr	Thr	Leu	Leu	Ser	Ser	Glu	Va]
-	1090					1095					1100				
Gln	Lys	Leu	Ala	Ser	Ala	Leu	Leu	Asn	Gln	Lys	Cys	Pro	Leu	Ala	Trp
110	5				1110					1115					1120
Gln	Ser	Lys	Trp	Glu	Gly	Pro	Glu	Asp	Pro	Leu	Gln	Tyr	Leu	Arg	Gly
			,	1125					1130					1135	
Leu	Val	Ala	Arg	Ala	Leu	Ala	lle	Gln	Asn	Trp	Val	Asp	Lys	Ala	Glu
		]	1140					1145					1150		
Lys	Gln	Ala	Leu	Leu	Ser	Glu	Thr	Leu	Asp	Leu	Ser	Glu	Leu	Phe	His
		1155					1160					1165			
Pro	Asp	Thr	Phe	Leu	Asn	Ala	Leu	Arg	GIn	Glu	Thr	Ala	Arg	Ala	Val
	1170					1175					1180				
Gly	Arg	Ser	Val	Asp	Ser	Leu	Lys	Phe	Val	Ala	Ser	Trp	Lys	Gly	Arg
118	5				1190					1195					1200
Leu	Gln	Glu	Ala	Lys	Leu	Gln	He	Lys	He	Ser	Gly	Leu	Leu	Leu	Glu
				1205					1210					1215	
C1v	Cvc	Sor	Pho	Acr	$G1_{22}$	Acr	$C1_{\rm P}$	Lou	Sar	$G1_{12}$	Ace	Gln	Lou	Acn	Sor

1225 1230 1220 Pro Ser Val Ser Ser Val Leu Pro Cys Phe Met Gly Trp Ile Pro GIn 1240 Asp Ala Cys Gly Pro Tyr Ser Pro Asp Glu Cys Ile Ser Leu Pro Val 1250 1255 1260 Tyr Thr Ser Ala Glu Arg Asp Arg Val Val Thr Asn Ile Asp Val Pro 1270 1275 Cys Gly Gly Asn Gln Asp Gln Trp Ile Gln Cys Gly Ala Ala Leu Phe 1290 Leu Lys Asn Gln 1300 <210> 4909 <211> 944 <212> PRT <213> Homo sapiens <400> 532 Met Gly Ser Asp Gly 11e Leu Arg Leu Ser Thr Ser Ala Leu Asn Asn 5 1 10 15 Glu Phe Phe Ala Tyr Ala Ala Gln Gly Trp Lys Gln Arg Leu Ala Glu 25 Gly Glu Phe Thr Pro Glu Met Gln Leu Arg Ile Arg Gln Glu 11e Glu 35 45 40 Lys Glu Lys Lys Thr Glu Pro Trp Lys Glu Lys Phe Phe Glu Arg Phe 55 Tyr Gly Glu Lys Leu Gly Met Ser Arg Glu Glu Ser Val Lys Leu Thr 70 75 Thr Gly Pro Asn Asn Ala Gly Ala Gln Ser Ser Ser Cys Gly Thr 85 90 95 Ser Gly Leu Pro Val Ser Ala Gln Thr Ala Leu Ala Glu Gln Gln Pro 105 Lys Ser Met Lys Ser Pro Ala Ser Pro Glu Pro Gly Phe Cys Ala Thr . 120 125

Leu Cys Pro Met Val Glu IIe Pro Pro Lys Asp IIe Met Ala Glu Leu

	130					135					140				
Glu	Ser	Glu	Asp	He	Leu	He	Pro	Glu	Glu	Ser	Val	Ile	G1n	Glu	Glu
145					150					155					160
He	Ala	Glu	Glu	Val	Glu	Thr	Ser	He	Cys	Glu	Cys	Gln	Asp	Glu	Asn
				165					170					175	
His	Lys	Thr	He	Pro	Glu	Phe	Ser	Glu	Glu	Ala	Glu	Ser	Leu	Thr	Asn
			180					185					190		
Ser	His	Glu	Glu	Pro	Gln	Ile	Ala	Pro	Pro	Glu	Asp	Asn	Leu	Glu	Ser
		195					200					205			
Cys	Val	Met	Met	Asn	Asp	Val	Leu	Glu	Thr	Leu	Pro	His	lle	Glu	Val
	210					215					220				
Lys	lle	Glu	Gly	Lys	Ser	Glu	Ser	Pro	Gln	Glu	Glu	Met	Thr	Val	Val
225					230					235					240
He	Asp	Gln	Leu	Glu	Val	Cys	Asp	Ser	Leu	He	Pro	Ser	Thr	Ser	Ser
				245					250					255	
Met	Thr	His		Ser	Asp	Thr	Glu		Lys	Glu	Ser	Glu		Ala	Val
			260					265					270		
Glu	Thr		Thr	Pro	Lys	Ile		Thr	Gly	Ser	Ser		Leu	Glu	Gly
		275					280					285		_	
Gln		Pro	Asn	Glu	Gly		Ala	He	Asp	Met		Leu	GIn	Ser	Asp
Б	290	61	61		0	295		4.7	0	3.1	300	6.1	T)	0	DI
	Glu	Glu	GIn	Leu		Glu	Asn	Ala	Cys		Ser	Glu	Thr	Ser	
305	С.	C1 .	С.	n	310	C1	A.T	<b>C</b> .	TI.	315	1	n.	C .	n	320
ser	Ser	GIU	ser	Pro	GIU	GIY	Ala	Cys		Ser	Leu	Pro	Ser		GIŸ
C1	C1	The	Cln	325	The	Son	C1	Clu	330 San	Cua	The	Dro	<b>41</b> a	335	Lau
Gly	Glu	1111	340	Ser	1111	261	GIU	345		Cys	1111	F10	350	361	Leu
Glu	Thr	Thr		Cys	Sor	Glu	Val			Thr	Glu	Asn		Asp	Lve
Olu	1111	355	1110	Cys	561	Olu	360	561	561	1111	Olu	365	1111	пэр	1. y 3
Tvr	Asn		Arg	Asn	Ser	Thr		Glu	Asn	Phe	His		Ser	Len	Met
1,1	370	· · · ·	6			375	Пор	0.0			380		00.	.500	
Ser		lle	Ser	Pro	lle		Thr	Ser	Pro	Glu		Ser	Glu	Ala	Ser
385					390					395					400
	Met	Ser	Asn	Leu		Leu	Thr	Ser	Glu		Ser	Pro	Val	Ser	Asn
				405					410					415	
Lou	Pro	Lou	Thr	Sor	C1.	Thr	Sor	Pro	Mot	Sor	Acn	Lou	Dro	Lou	The

			420					425					430		
Ser	Lys	Thr	Ser	Ser	Val	Ser	Ser	Met	Leu	Leu	Thr	Ser	Glu	Thr	Thr
		435					440					445			
Phe	Val	Ser	Ser	Leu	Pro	Leu	Pro	Ser	Glu	Thr	Ser	Pro	He	Ser	Asn
	450					455					460				
Ser	Ser	He	Asn	Glu	Arg	Met	Ala	His	Gln	Gln	Arg	Lys	Ser	Pro	Ser
465					470					475					480
Val	Ser	Glu	Glu	Pro	Leu	Ser	Pro	Gln	Lys	Asp	Glu	Ser	Ser	Ala	Thr
				485					490					495	
Ala	Lys	Pro	Leu	Gly	Glu	Asn	Leu	Thr	Ser	Gln	Gln	Lys	Asn	Leu	Ser
			500					505					510		
Asn	Thr	Pro	Glu	Pro	He	He	Met	Ser	Ser	Ser	Ser	lle	Ala	Pro	Glu
		515					520					525			
Ala	Phe	Pro	Ser	Glu	Asp	Leu	His	Asn	Lys	Thr	Leu	Ser	Gln	Gln	Thr
	530					535					540				
Cys	Lys	Ser	His	Val	Asp	Thr	Glu	Lys	Pro	Tyr	Pro	Ala	Ser	He	Pro
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Glu	Leu	Ala	Ser	Thr	Glu	Met	Ile	Lys	Val	Lys	Asn	His	Ser	Val	Leu
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Gln	Arg	Thr	Glu	Lys	Lys	Val	Leu	Pro	Ser	Pro	Leu	Glu	Leu	Ser	Val
			580					585					590		
Phe	Ser	Glu	Gly	Thr	Asp	Asn	Lys	Gly	Asn	Glu	Leu	Pro	Ser	Ala	Lys
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Leu	Gln	Asp	Lys	Gln	Tyr	He	Ser	Ser	Val	Asp	Lys	Ala	Pro	Phe	Ser
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Glu	Gly	Ser	Arg	Asn	Lys	Thr	His	Lys	Gln	Gly	Ser	Thr	Gln	Ser	Arg
625					630					635					640
Leu	Glu	Thr	Ser	His	Thr	Ser	Lys	Ser	Ser	Glu	Pro	Ser	Lys	Ser	Pro
				645					650					655	
Asp	Gly	He	Arg	Asn	Glu	Ser	Arg	Asp	Ser	Glu	He	Ser	Lys	Arg	Lys
			660					665					670		
Thr	Ala		Gln	His	Ser	Phe		He	Cys	Lys	Glu		Arg	Ala	Arg
		675					680					685			
He	Glu	Asp	Asp	Gln	Ser	Thr	Arg	Asn	He	Ser	Ser	Ser	Ser	Pro	Pro
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Glu	Lys	Glu	Gln	Pro	Pro	Arg	Glu	Glu	Pro	Arg	Val	Pro	Pro	Leu	Lys

705					710					715					720
He	Gln	Leu	Ser	Lys	He	Gly	Pro	Pro	Phe	lle	lle	Lys	Ser	Gln	Pro
				725					730					735	
Val	Ser	Lys	Pro	G1u	Ser	Arg	Ala	Ser	Thr	Ser	Thr	Ser	Val	Ser	Gly
			740					745					750		
Gly	Arg	Asn	Thr	Gly	Ala	Arg	Thr	Leu	Ala	Asp	He	Lys	Ala	Arg	Ala
		755					760					765			
Gln	Gln	Ala	Arg	Ala	Gln	Arg	Glu	Ala	Ala	Ala	Ala	Ala	Ala	Val	Ala
	770					775					780				
Ala	Ala	Ala	Ser	Ile	Val	Ser	Gly	Ala	Met	Gly	Ser	Pro	Gly	Glu	Gly
785					790					795					800
Gly	Lys	Thr	Arg	Thr	Leu	Ala	His	lle	Lys	Glu	Gln	Thr	Lys	Ala	Lys
				805					810					815	
Leu	Phe	Ala	Lys	His	Gln	Ala	Arg	Ala	His	Leu	Phe	Gln	Thr	Ser	Lys
			820					825					830		
Glu	Thr	Arg	Leu	Pro	Pro	Pro	Leu	Ser	Ser	Lys	Glu	Gly	Pro	Pro	Asn
		835					840					845			
Leu		Val	Ser	Ser	Thr		Glu	Thr	Lys	Met		Gly	Ser	Thr	Gly
	850					855					860				
Val	He	He	Val	Asn	Pro	Asn	Cys	Arg	Ser	Pro	Ser	Asn	Lys	Ser	
865					870					875					880
His	Leu	Arg	Glu		Thr	Thr	Val	Leu		Gln	Ser	Leu	Asn	Pro	Ser
				885					890					895	
Lys	Leu	Pro		Thr	Ala	Thr	Asp		Ser	Va]	His	Ser	Ser	Asp	Glu
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Asn	Ile	Pro	Val	Ser	His	Leu		Glu	Lys	lle	Val		Ser	Thr	Ser
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<210> 4910

<211> 1161

<212> PRT

<213> Homo sapiens

\4U(	JZ 53	აა													
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Arg	Val	Ser	Phe	Val	Asp	Val	His	Pro	Asp	Val	He	Pro	Val	Gln	Leu
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Trp	Gly	Leu	Val	Gly	Glu	Arg	Arg	Gly	Glu	Tyr	Leu	Arg	Leu	Ser	Arg
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Glu	He	Gln	Glu	Ala	Ala	Ala	Thr	Arg	Gly	Gln	Trp	Ala	Leu	Gly	Ser
	50					55					60				
Ala	Ser	Ala	Ser	Pro	Gly	Glu	Leu	Cys	Leu	Val	Gln	Val	Gly	Leu	Leu
65					70					75					80
Trp	His	Arg	Cys	Arg	Val	Val	Ser	Arg	Gln	Ala	Gln	Glu	Ser	Arg	Val
				85					90					95	
Phe	Leu	Leu	Asp	Glu	Gly	Arg	Thr	He	Thr	Ala	Gly	Ala	Gly	Ser	Leu
			100					105					110		
Ala	Pro	Gly	Arg	Arg	Glu	Phe	Phe	Asn	Leu	Pro	Ser	Glu	Val	Leu	Gly
		115					120					125			
Cys	Val	Leu	Ala	Gly	Leu	Val	Pro	Ala	Gly	Cys	Gly	Ala	Gly	Ser	Gly
	130					135					140				
Glu	Pro	Pro	Gln	His	Trp	Pro	Ala	Asp	Ala	Val	Asp	Phe	Leu	Ser	Asn
145					150					155					160
Leu	Gln	Gly	Lys	Glu	Val	His	Gly	Cys	Val	Leu	Asp	Val	Leu		Leu
				165					170					175	
His	Arg	Leu		Leu	Leu	Glu	Val		Asp	Val	Phe	Gln		Met	Arg
		0.7	180				., -	185				131	190		
Glu	Leu		Leu	Ala	Arg	Arg		Pro	Asp	Ser	Leu		Arg	Ser	Leu
1	C1	195	т	1	TI.	A 3 -	200	Ti	A T	C	V 1	205	C	C1.	W - 1
Leu		Arg	ıyr	Leu	ıhr	Ala	Ala	ınr	ата	ser		υĮΫ	ser	01y	val
D	210	1	C	۸	V - 1	215	1	1	61	Luc	220	Dur	C1	1 ~	Λ ~~
	val	Leu	ser	Arg		Pro	Leu	Lys	GIN		oin	rro	ыу	Leu	
225 Tun	Dl- «	т	Dave	C1.	230	C1~	1	C1	V <sub>C</sub> 1	235	C1	۸1-	Va 1	V <sub>C</sub> 1	240
ıyr	rne	ıyr	rro		Leu	G1n	Leu	ыу		ınr	ыu	Ala	vai		116
TL	C1.	V <sub>C</sub> 1	C	245	D	u: -	Λ	T1.	250	Cue	C1-	Lav	Λ	255 San	Val
ınr	υIn	val	-	пls	rro	His	Arg		mis	Cys	GIN	Leu	-	ser	val
San	Clo	C1	260	и; "	۸	Lou	Sar	265	Son	Mo+	۸1.	Clo	270 Val	Tun	120
SOF	1.10	1.111	110	1110	Ara	1 611	Ser	1 7 1 11	Ser	NIGT	11 2	T. In	V 21	1 V 1	Aro

		275					280					285			
Gly	Ser	Thr	Gly	Thr	Gly	Asp	Glu	۸sn	Ser	Thr	Ser	Ala	Thr	Trp	Glu
	290					295					300				
Glu	Arg	Glu	Glu	Ser	Pro	Asp	Lys	Pro	Gly	Ser	Pro	Cys	Ala	Ser	Cys
305					310					315					320
G1 y	Leu	Asp	G1y	His	Trp	Tyr	Arg	Ala	Leu	Leu	Leu	Glu	Thr	Phe	Arg
				325					330					335	
Pro	Gln	Arg	Cys	Ala	Gln	Val	Leu	His	Val	Asp	Tyr	Gly	Arg	Lys	Glu
			340					345					350		
Leu	Val	Ser	Cys	Ser	Ser	Leu	Arg	Tyr	Leu	Leu	Pro	Glu	Tyr	Phe	Arg
		355					360					365			
Met	Pro	Val	Val	Thr	Tyr	Pro	Cys	Ala	Leu	Tyr	Gly	Leu	Trp	Asp	Gly
	370					375					380				
Gly	Arg	Gly	Trp	Ser	Arg	Ser	Gln	Val	Gly	Asp	Leu	Lys	Thr	Leu	He
385					390					395					400
Leu	Gly	Lys	Ala	Val	Asn	Ala	Lys	Пе	Glu	Phe	Tyr	Cys	Ser	Phe	Glu
				405					410					415	
His	Val	Tyr	Tyr	Val	Ser	Leu	Tyr	Gly	Glu	Asp	Gly	lle	Asn	Leu	Asn
			420					425					430		
	Val	Phe	420		Gln		Cys		Leu	Ala	Asp	Arg			Gln
	Val	Phe 435	420				Cys 440		Leu	Ala	Asp	Arg 445			Gln
Arg		435	420 Gly	Val		Ser	440	Cys				445	Val	Leu	
Arg		435	420 Gly	Val	Gln	Ser	440	Cys				445	Val	Leu	
Arg Ser	Gln 450	435 Ala	420 Gly Thr	Val Glu	Gln	Ser Glu 455	440 Glu	Cys Pro	Glu	Thr	Ser 460	445 Gln	Val Ser	Leu Gln	Ser
Arg Ser	Gln 450	435 Ala	420 Gly Thr	Val Glu	Gln Glu	Ser Glu 455	440 Glu	Cys Pro	Glu	Thr	Ser 460	445 Gln	Val Ser	Leu Gln	Ser
Arg Ser Pro 465	Gln 450 Ala	435 Ala Glu	420 Gly Thr Glu	Val Glu Val	Gln Glu Asp	Ser Glu 455 Glu	440 Glu Glu	Cys Pro	Glu Ser	Thr Leu 475	Ser 460 Pro	445 Gln Ala	Val Ser Leu	Leu Gln Arg	Ser Ser 480
Arg Ser Pro 465 Ile	Gln 450 Ala Arg	435 Ala Glu Leu	420 Gly Thr Glu Lys	Val Glu Val Met 485	Gln Glu Asp 470 Asn	Ser Glu 455 Glu Ala	440 Glu Glu Phe	Cys Pro 11e Tyr	Glu Ser Asp 490	Thr Leu 475 Ala	Ser 460 Pro Gln	445 Gln Ala Val	Val Ser Leu Glu	Leu Gln Arg Phe 495	Ser Ser 480 Val
Arg Ser Pro 465 Ile	Gln 450 Ala Arg	435 Ala Glu Leu	420 Gly Thr Glu Lys	Val Glu Val Met 485	Gln Glu Asp 470 Asn	Ser Glu 455 Glu Ala	440 Glu Glu Phe	Cys Pro 11e Tyr	Glu Ser Asp 490	Thr Leu 475 Ala	Ser 460 Pro Gln	445 Gln Ala Val	Val Ser Leu Glu	Leu Gln Arg Phe 495	Ser Ser 480 Val
Arg Ser Pro 465 Ile	Gln 450 Ala Arg Asn	435 Ala Glu Leu Pro	420 Gly Thr Glu Lys Ser 500	Val Glu Val Met 485 Glu	Gln Glu Asp 470 Asn	Ser Glu 455 Glu Ala Trp	440 Glu Glu Phe	Cys Pro Ile Tyr Arg 505	Glu Ser Asp 490 Leu	Thr Leu 475 Ala	Ser 460 Pro Gln Lys	445 Gln Ala Val	Val Ser Leu Glu Asn 510	Leu Gln Arg Phe 495 Val	Ser Ser 480 Val
Arg Ser Pro 465 Ile	Gln 450 Ala Arg Asn	435 Ala Glu Leu Pro	420 Gly Thr Glu Lys Ser 500	Val Glu Val Met 485 Glu	Gln Glu Asp 470 Asn	Ser Glu 455 Glu Ala Trp	440 Glu Glu Phe	Cys Pro Ile Tyr Arg 505	Glu Ser Asp 490 Leu	Thr Leu 475 Ala	Ser 460 Pro Gln Lys	445 Gln Ala Val His	Val Ser Leu Glu Asn 510	Leu Gln Arg Phe 495 Val	Ser Ser 480 Val
Arg Ser Pro 465 Ile Lys	G1n 450 A1a Arg Asn Ser	435 Ala Glu Leu Pro Lys 515	420 Gly Thr Glu Lys Ser 500 Leu	Val Glu Val Met 485 Glu Met	Gln Glu Asp 470 Asn Phe	Ser Glu 455 Glu Ala Trp	440 Glu Glu Phe Ile Met 520	Cys Pro Ile Tyr Arg 505 Cys	Glu Ser Asp 490 Leu Gly	Thr Leu 475 Ala Arg	Ser 460 Pro Gln Lys	445 Gln Ala Val His Ser 525	Val Ser Leu Glu Asn 510 Ser	Leu Gln Arg Phe 495 Val	Ser  Ser  480  Val  Thr
Arg Ser Pro 465 Ile Lys	Gln 450 Ala Arg Asn Ser Leu	435 Ala Glu Leu Pro Lys 515	420 Gly Thr Glu Lys Ser 500 Leu	Val Glu Val Met 485 Glu Met	Gln Glu Asp 470 Asn	Ser Glu 455 Glu Ala Trp Arg Leu	440 Glu Glu Phe Ile Met 520	Cys Pro Ile Tyr Arg 505 Cys	Glu Ser Asp 490 Leu Gly	Thr Leu 475 Ala Arg	Ser 460 Pro Gln Lys Tyr	445 Gln Ala Val His Ser 525	Val Ser Leu Glu Asn 510 Ser	Leu Gln Arg Phe 495 Val	Ser  Ser  480  Val  Thr
Arg Ser Pro 465 Ile Lys Phe	G1n 450 A1a Arg Asn Ser Leu 530	435 Ala Glu Leu Pro Lys 515 Asp	420 Gly Thr Glu Lys Ser 500 Leu Gly	Val Glu Val Met 485 Glu Met Val	Gln Glu Asp 470 Asn Phe Arg Val	Ser Glu 455 Glu Ala Trp Arg Leu 535	440 Glu Glu Phe Ile Met 520 Lys	Cys Pro 11e Tyr Arg 505 Cys Pro	Glu Ser Asp 490 Leu Gly	Thr Leu 475 Ala Arg Phe	Ser 460 Pro Gln Lys Tyr Asp 540	445 Gln Ala Val His Ser 525 Asp	Val Ser Leu Glu Asn 510 Ser Leu	Leu Gln Arg Phe 495 Val Ala Cys	Ser  Ser  480  Val  Thr  Ser  Cys
Arg Ser Pro 465 Ile Lys Phe Lys Val	G1n 450 A1a Arg Asn Ser Leu 530	435 Ala Glu Leu Pro Lys 515 Asp	420 Gly Thr Glu Lys Ser 500 Leu Gly	Val Glu Val Met 485 Glu Met Val	Gln Glu Asp 470 Asn Phe Arg Val	Ser Glu 455 Glu Ala Trp Arg Leu 535	440 Glu Glu Phe Ile Met 520 Lys	Cys Pro 11e Tyr Arg 505 Cys Pro	Glu Ser Asp 490 Leu Gly	Thr Leu 475 Ala Arg Phe Pro	Ser 460 Pro Gln Lys Tyr Asp 540	445 Gln Ala Val His Ser 525 Asp	Val Ser Leu Glu Asn 510 Ser Leu	Leu Gln Arg Phe 495 Val Ala Cys	Ser 480 Val Thr Ser Cys
Arg Ser Pro 465 He Lys Phe Lys Val 545	Gln 450 Ala Arg Asn Ser Leu 530 Lys	435 Ala Glu Leu Pro Lys 515 Asp	420 Gly Thr Glu Lys Ser 500 Leu Gly Lys	Val  Glu  Val  Met  485 Glu  Met  Val  Glu	Gln Glu Asp 470 Asn Phe Arg Val	Ser Glu 455 Glu Ala Trp Arg Leu 535 Gly	440 Glu Glu Phe Ile Met 520 Lys	Cys Pro He Tyr Arg 505 Cys Pro Tyr	Glu Ser Asp 490 Leu Gly Glu Arg	Thr Leu 475 Ala Arg Phe Pro Ala 555	Ser 460 Pro Gln Lys Tyr Asp 540 Ile	445 Gln Ala Val His Ser 525 Asp	Val Ser Leu Glu Asn 510 Ser Leu Thr	Leu Gln Arg Phe 495 Val Ala Cys	Ser 480 Val Thr Cys Leu 560

				565					570					575	
Asn	Val	Asp	Trp	Tyr	Asp	Val	Arg	Met	Leu	Leu	Pro	Gln	Phe	Arg	Gln
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Leu	Pro	He	Leu	Ala	Val	Lys	Cys	Thr	Leu	Ala	Asp	He	Trp	Pro	Leu
		595					600					605			
Gly	Lys	Thr	Trp	Ser	Gln	Glu	Ala	Val	Ser	Phe	Phe	Lys	Lys	Thr	Val
	610					615					620				
Leu	His	Lys	Glu	Leu	Val	Ile	His	lle	Leu	Asp	Lys	Gln	Asp	His	Gln
625					630					635					640
Tyr	Val	lle	Glu	He	Leu	Asp	Glu	Ser	Arg	Thr	Gly	Glu	Glu	Asn	Пе
				645					650					655	
Ser	Lys	Val	He	Ala	Gln	Ala	Gly	Tyr	Ala	Lys	Tyr	Gln	Glu	Phe	Glu
			660					665					670		
Thr	Lys	Glu	Asn	11e	Leu	Val	Asn	Ala	His	Ser	Pro	Gly	His	Val	Ser
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Asn	His	Phe	Thr	Thr	Glu	Ser	Asn	Lys	Ile	Pro	Phe	Ala	Lys	Thr	Gly
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Glu	Gly	Glu	Gln	Lys	Ala	Lys	Arg	Glu	Asn	Lys	Thr	Thr	Ser	Val	Ser
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Lys	Ala	Leu	Ser	Asp	Thr	Thr	Val	Val	Thr	Asn	Gly	Ser	Thr	Glu	Leu
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Val	Val	Gln	Glu	Lys	Val	Lys	Arg	Ala	Ser	Val	Tyr	Phe	Pro	Leu	Met
			740					745					750		
Gln	Asn	Cys	Leu	Glu	He	Lys	Pro	Gly	Ser	Ser	Ser	Lys	Gly	Glu	Leu
		755					760					765			
Glu	Val	Gly	Ser	Thr	Va]	Glu	Val	Arg	Val	Ser	Tyr	Val	Glu	Asn	Pro
	770										780				
	Tyr	Phe	Trp	Cys		Leu	Thr	Arg	Asn		Gln	Gly	Leu	Lys	
785					790		_	_		795				_	800
Leu	Met	Ser	Asp		Gln	Tyr	Tyr	Cys		Asn	Thr	Ala	Ala	Pro	His
				805			_		810		m.			815	
GIn	Arg	Asn		Leu	Ala	Cys	Leu		Lys	Arg	Thr	Val		Arg	GIn
<b></b>			820		-	_		825	0.1		., .		830		
Irp	Ser		Ala	Leu	He	Ser		He	GIn	Ser	Val		His	Val	Asn
V: 7	ar i	835	W 3		т	C1	840		C.	1.4	17. 3	845	17 3		
Val	Thr	Phe	Val	Asn	Lyr	GIV	Asn	Arg	(.11)	Met	Val	Ser	Val	lvc	Agn

	850					855					860				
He	Tyr	Ser	He	Ser	Glu	Glu	Phe	Leu	Lys	Val	Lys	Ala	Gln	Ala	Phe
865					870					875					880
Arg	Cys	Ser	Leu	Tyr	Asn	Leu	He	Gln	Pro	Val	Gly	Gln	Asn	Pro	Phe
				885					890					895	
Val	Trp	Asp	Val	Lys	Ala	He	Gln	Ala	Phe	Asn	Glu	Phe	lle	Asp	Asn
			900					905					910		
Ala	Trp	Gln	Lys	Asn	Leu	Glu	Leu	Lys	Cys	Thr	He	Phe	Ala	Leu	Ala
		915					920					925			
Ser	lle	Asn	Glu	Glu	Leu	Р́hе	Asn	He	Val	Asp	Leu	Leu	Thr	Pro	Phe
	930					935					940				
Gln	Ser	Ala	Cys	His	Phe	Leu	Val	Glu	Lys	Arg	Leu	Ala	Arg	Pro	Val
945					950					955					960
Lys	Leu	Gln	Lys	Pro	Leu	Glu	Ser	Ser	Val	Gln	Leu	His	Ser	Tyr	Phe
				965					970					975	
Tyr	Ser	Thr	His	Asp	Met	Lys	He	Gly	Ser	Glu	Glu	Leu	Val	Tyr	lle
			980					985					990		
Thr	His	lle	Asp	Asp	Pro	Trp	Thr	Phe	Tyr	Cys	Gln	Leu	Ala	Arg	Asn
		995				]	1000				-	1005			
Ala	Asn	lle	Leu	Glu	Gln	Leu	Ser	Cys	Ser	He	Thr	Gln	Leu	Ser	Lys
	1010				]	1015					1020				
Val	Leu	Leu	Asn	Leu	Lys	Thr	Ser	Pro	Leu	Asn	Pro	Gly	Thr	Leu	Cys
1029	5				1030				-	1035					1040
Leu	Ala	Lys	Tyr	Thr	Asp	Gly	Asn	Trp	Tyr	Arg	Gly	lle	Val	He	Glu
			]	1045					1050					1055	
Lys	Głu	Pro	Lys	Lys	Val	Phe	Phe	Val	Asp	Phe	Gly	Asn	He	Tyr	Val
			1060					1065				-	1070		
Val	Thr	Ser	Asp	Asp	Leu	Leu	Pro	lle	Pro	Ser	Asp	Ala	Tyr	Asp	Val
		1075					1080					1085			
Leu	Leu	Leu	Pro	Met	Gln	Ala	Val	Arg	Cys	Ser	Leu	Ser	Asp	lle	Pro
	1090				]	1095					1100				
Asp	His	He	Pro	Glu	Glu	Val	Va]	Val	Trp	Phe	G1n	Glu	Thr	Пe	Leu
110	5				1110					1115					1120
Asp	Lys	Ser	Leu	Lys	Ala	Leu	Va1	Val	Ala	Lys	Asp	Pro	Asp	Gly	Thr
				1125					1130					1135	
1	110	110	G1n	Leu	Tyr	G1v	Asn	Asn	He	Gln	He	Ser	Ala	Ser	11e

Asn Lys Lys Leu Gly Leu Leu Ser Tyr <210> 4911 <211> 762 <212> PRT <213> Homo sapiens <400> 534 Met Gly Asp Leu Lys Ser Gly Phe Glu Glu Val Asp Gly Val Arg Leu Gly Tyr Leu Ile Ile Lys Gly Lys Gln Met Phe Ala Leu Ser Gln Val Phe Thr Asp Leu Lys Asn Ile Pro Arg Thr Thr Val His Lys Arg Met Asp His Leu Lys Val Lys Lys His His Cys Asp Leu Glu Glu Leu Arg Lys Leu Lys Ala Ile Asn Ser Ile Ala Phe His Ala Ala Lys Cys Thr Leu Ile Ser Arg Glu Asp Val Glu Ala Leu Tyr Thr Ser Cys Lys Thr Glu Arg Val Leu Lys Thr Lys Arg Arg Arg Val Gly Arg Ala Leu Ala Thr Lys Ala Pro Pro Pro Glu Arg Ala Ala Ala Ser Pro Arg Pro Gly Phe Trp Lys Asp Lys His Gln Leu Trp Arg Gly Leu Ser Gly Ala Ala Arg Pro Leu Pro 11e Ser Ala Gln Ser Gln Arg Pro Gly Ala Ala Ala Ala Arg Pro Ala Ala His Leu Pro Gln Ile Phe Ser Lys Tyr 

Pro Gly Ser His Tyr Pro Glu IIe Val Arg Ser Pro Cys Lys Pro Pro

Leu	Asn	Tyr	Glu	Thr	Ala	Pro	Leu	Gln	Gly	Asn	Tyr	Val	Ala	Phe	Pro
		195					200					205			
Ser	Asp	Pro	Ala	Tyr	Phe	Arg	Ser	Leu	Leu	Cys	Ser	Lys	His	Pro	Ala
	210					215					220				
Ala	Λla	Ala	Ala	Gly	Ala	Thr	Cys	Leu	Glu	Arg	Phe	His	Leu	Val	Asn
225					230					235					240
Gly	Phe	Cys	Pro	Pro	Pro	His	His	His	His	His	His	His	His	His	His
				245					250					255	
His	His	His		His	Arg	Ala	Gln		Pro	Gln	Gln	Ser		His	Pro
_			260		_			265					270		_
Pro	His		His	Arg	Pro	Gln		His	Leu	Gly	Ser		Pro	Glu	Ser
0	C	275		0	<i>C</i> 1	c	280	C	T	C		285			
Uys		Ser	Asp	Ser	Glu	Ser	5er	Ser	lyr	Ser		HIS	Ala	Ala	Asn
Aan	290	Aan	Dha	C1	Com	295	Lau	Con	Con	Con	300	Aan	Con	V o 1	Con
305	ser	Asp	rne	Gly	310	Ser	Leu	Ser	Se1.	315	ser	ASH	ser	vai	320
	Glu	Glu	Glu	Glu		Glu	Glv	Glu	Glu		Glu	Glu	Glu	Glu	
501	014	oru	ora	325	014	014	01)	Old	330	Olu	014	oru	Old	335	olu
Glu	Glu	Glu	Glu		Glv	Ser	Gly	Ala		Asp	Ser	Ser	Glu		Ser
			340					345					350		
Ser	Glu	Glu	Glu	Asp	Ser	Ser	Thr	Glu	Ser	Asp	Ser	Ser	Ser	Gly	Ser
		355					360					365			
Ser	Gln	Val	Ser	Val	Gln	Ser	He	Arg	Phe	Arg	Arg	Thr	Ser	Phe	Cys
	370					375					380				
Lys	Pro	Pro	Ser	Val	Gln	Ala	Gln	Ala	Asn	Phe	Leu	Tyr	His	Leu	Ala
385					390					395					400
Ser	Ala	Ala	Ala	Ala	Thr	Lys	Pro	Ala	Ala	Phe	Glu	Asp	Ala	Gly	Arg
				405					410					415	
Leu	Pro	Asp	Leu	Lys	Ser	Ser	Val		Ala	Glu	Ser	Pro	Ala	Glu	Trp
			420					425					430		
Asn	Leu		Ser	Trp	Ala	Pro		Ala	Ser	Pro	Val		Cys	Pro	Ala
		435					440					445		_	
Ser		Gly	Ser	Cys	Phe	Ala	GJu	He	Arg	Asn		Arg	Val	Ser	GJu
3.1	450	101	D	11.5	C	455	11	C.	Δ.	A 1	460		Α.	TI	
11e 465	ınr	rne	rro	nls		Glu	116	ser	ASN		val	Lys	arg	ınr	
COL					470					475					480

Leu	Thr	Ile	Asn		Leu	Ala	Glu	Gly		Ser	Ser	Pro	Ser		Lys
				485					490					495	
Thr	Asn	Asn	Ala	Phe	Pro	Gln	Gln	Arg	He	Leu	Arg	Glu	Ala	Arg	Lys
			500					505					510		
Cys	Leu	Gln	Thr	Thr	Pro	Thr	Thr	His	Cys	Ala	Asp	Asn	Asn	Thr	He
		515					520					525			
Ala	Ala	Arg	Phe	Leu	Asn	Asn	Asp	Ser	Ser	Gly	Ala	Glu	Ala	Asn	Ser
	530					535					540				
G1u	Lys	Tyr	Ser	Lys	lle	Leu	His	Cys	Pro	Glu	Phe	Ala	Thr	Asp	Leu
545					550					555					560
Pro	Ser	Ser	Gln	Thr	Asp	Pro	Glu	Val	Asn	Ala	Ala	Gly	Ala	Ala	Ala
				565					570					575	
Thr	Lys	Ala	Glu	Asn	Pro	Cys	Thr	Asp	Thr	Gly	Asp	Lys	Thr	Leu	Pro
			580					585					590		
Phe	Leu	His	Asn	11e	Lys	He	Lys	Val	Glu	Asp	Ser	Ser	Ala	Asn	Glu
		595					600					605			
Glu	Tyr	Glu	Pro	His	Leu	Phe	Thr	Asn	Lys	Leu	Lys	Cys	Glu	Cys	Asn
	610					615					620				
Asp	Thr	Lys	Gly	Glu	Phe	Tyr	Ser	Val	Thr	Glu	Ser	Lys	Glu	Glu	Asp
625					630					635					640
Ala	Leu	Leu	Thr	Thr	Ala	Lys	Glu	Gly	Phe	Ala	Cys	Pro	Glu	Lys	Glu
				645					650					655	
Thr	Pro	Ser	Leu	Asn	Pro	Leu	Ala	Gln	Ser	Gln	Gly	Leu	Ser	Cys	Thr
			660					665					670		
Leu	Gly	Ser	Pro	Lys	Pro	Glu	Asp	Gly	Glu	Tyr	Lys	Phe	Gly	Ala	Arg
		675					680					685			
Val	Arg	Lys	Asn	Tyr	Arg	Thr	Leu	Val	Leu	Gly	Lys	Arg	Pro	Val	Leu
	690					695					700				
Gln	Thr	Pro	Pro	Val	Lys	Pro	Asn	Leu	Lys	Ser	Ala	Arg	Ser	Pro	Arg
705					710					715					720
Pro	Thr	Gly	Lys	Thr	Glu	Thr	Asn	Glu	Gly	Thr	Leu	Asp	Asp	Phe	Thr
				725					730					735	
Val	lle	Asn	Arg	Arg	Lys	Lys	Val	Ala	Ser	Asn	Val	Ala	Ser	Ala	Va]
			740					745					750		
Lys	Arg	Pro	Phe	His	Phe	Met	Ala	Asn	Lys						
		755					760								

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<211> 619
<212> PRT
<213> Homo sapiens
<400> 535
Met Glu Gly Asp Ala Glu Thr Asp Val Leu Glu Cys Ala Asn Gln Arg
                                     10
                                                          15
Leu Val Ile Ser Glu Thr Asp Gly Glu Ile Leu Thr Pro Gly Trp Asp
                                 25
Thr Gln Asp Arg Met Gly Val Glu Ser Arg Thr Asn lle Gln Glu Leu
                             40
                                                 45
Gly Asn Arg Asn Gln Arg Glu Ala Gly Gly Glu Asn Leu Pro Glu Thr
                         55
Gln Ala His Met Gly Glu Asn Gln Glu Gln Leu Arg Cys Lys Ile Asp
                     70
                                         75
Ala Glu Thr Gln Thr Pro Glu Trp Glu Asn Gln Asp Lys Asn Gly Ser
                 85
                                     90
Glu Asp Ala Val Glu Thr Gln Thr Phe Glu Lys Lys Asp Lys Lys Glu
            100
                                105
                                                     110
Ala Gly Glu Glu Asp Gly Glu Glu Ile Gln Ala Gln Gly Leu Gly Lys
                            120
                                                 125
Gln Gly Gln Thr Gly Asp Glu Asn Gly Glu Glu Thr Gln Thr Pro Gln
    130
                        135
Trp Glu Lys Gln Asp Gln Met Lys Gly Asp Ala Asp Val Glu 11e Gln
                    150
                                        155
Met Glu Glu Gly Arg Asn Lys Asp Gln Val Gly Gly Gln Asp Ala Ala
                165
                                     170
                                                         175
Gln Thr Gln Ser Cys Gly Arg Glu Asn Val Gly Glu Val Lys Lys Glu
                                185
Asn Ser Val Glu Thr Gln Ala Leu Asp Trp Gly Lys Gln Glu Cys Val
        195
                            200
                                                 205
Gly Asn Gly Asn Val Thr Glu lle Gln Thr Pro Arg Trp Glu Lys His
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<210> 4912

Asp	Gln	Gly	Gly	Ser	Lys	Lys	Ala	Lys	Lys	Thr	Gln	Ala	Ser	Gly	Gly
225					230					235					240
Glu	Asn	Gln	Lys	Gln	Leu	Ser	His	Glu	Пе	G1n	Val	Gly	Trp	G1 y	Asn
				245					250					255	
Lys	Gly	Leu	Arg	Arg	Asp	Glu	Asp	Ala	Lys	Glu	Thr	GIn	11e	Ala	Thr
			260					265					270		
Lys	Lys	Lys	Leu	Arg	Glu	Пe	Arg	Glu	Lys	Asp	Trp	Val	Val	He	Gln
		275					280					285			
Ala	Leu	Trp	Trp	Gly	Asn	Arg	Arg	Gln	Val	Ala	Ser	Glu	lle	Tyr	Arg
	290					295					300				
Glu	Phe	Glu	He	Leu	Cys	Trp	Glu	Asn	Gln	Asn	Trp	lle	Gly	Gly	Glu
305					310					315					320
His	Arg	Ala	Glu	He	Gln	Ala	Ser	Glu	Lys	Arg	Asp	Gln	Arg	Lys	Asp
				325					330					335	
Gly	Cys	Glu	Asp	G1 y	Thr	Asn	lle	Leu	Ala	Pro	Glu	Ala	Glu	11e	Gln
			340					345					350		
Glu	Gln	Leu	Lys	Gly	Glu	Thr	Asp	Val	Glu	Thr	Gln	Ser	Asn	Glu	Pro
		355					360					365			
Leu	Arg	Glu	Glu	Asp	Gly	Thr	Asp	Ile	Gln	Ser	Leu	Gly	Arg	Arg	Glu
	370					375					380				
Val	Lys	Gly	G]u	Asp	Asp	Lys	Asp	Thr	Gln	Glu	Leu	Gly	Arg	Lys	Asn
385					390					395					400
Gln	Gly	Gln	Leu	Gly	Asn	Glu	Phe	Ser	Gly	Lys	He	His	He	Pro	Lys
				405					410					415	
Gly	Lys	Asn	Gln	Glu	His	He	Arg	Gly	Glu	Asp	Gly	Ala	His	Thr	Gln
			420					425					430		
He	Ser		Ser	Gly	Asn	Trp	Gly	Lys	Leu	Thr	Ser		He	Asp	G1 y
		435					440					445			
Glu		His	Ser	Ala	Glu	Trp	Lys	Lys	Asp	Gln	Gln	He	Glv	Gly	Glu
	450					455					460				
Asn	Gly	Ala	Glu	He	Gln	He	Gln	G1 y	Lys	Arg	Asn	Leu	Arg	Glu	Val
465					470					475					480
Gly	Gly	Glu	Asp	Gly	Val	Lys	Thr	Trp	Ala	Pro	Gly	Lys	Glu	Thr	Gln
				485					490					495	
Ser	Gln	Phe		Ser	Asp	Leu	G1 y	Arg	Lys	He	Leu	Leu		Glu	Trp
			500					505					510		

Lys Ser Gln Lys Gln Met Gly Ser Glu Asn Gly Thr Glu Ile Gln Ala Pro Val Glu Arg Asn Gln Arg Glu Pro Gly Gly Glu Asp Gly Val Lys Thr Gln Arg Pro Lys Arg Glu Asn Glu Asp Gln Leu Asp Ser Glu Ile Gly Gly Ser His Ser Pro Gly Arg Arg Asn Trp Glu Leu Ile Gly Lys Asp Val Ala Glu Asn Gln Ala Ser Glu Lys Arg Asn Gln Arg Glu Val Gly Asn Glu Asp Gly Arg Met Ile Trp Arg Leu Arg Gly Lys Asn Trp Arg Leu Arg Ala Lys Lys Gln Thr Val Lys Lys 

<210> 4913

<211> 164

<212> PRT

<213> Homo sapiens

<400> 536

Met Asn Val Leu Val Trp Glu Asp Cys lle Ala Glu Gln Ala Glu Val Leu His Asn Asp Ser Tyr Gly Val IIe IIe Asp Cys Ser Pro Lys Gly Met Phe Ser Leu Asn Cys Thr Ser Gln Ser Ala Cys His Gly His Thr Met Phe Ser Trp Ser Glu Gln Asn Gly Gln Met Val Glu Met lle Arg Ser Met Ala Arg Val Pro Ile Ile Trp Lys His Gly Gly Ile Val Ala Pro Gln Pro Gln Met lle Trp Pro Ala Val Gly Ala Lys His Lys Asp Leu Trp Lys Leu Leu Met Ala Leu Asn Lys Ile Lys Ile Trp Glu Arg

Ile Lys Lys His Leu Glu Gly His Ser Arg Asn Leu Asp Ile Ala Lys Leu Lys Glu Gln Ile Phe Lys Ala Ser Gln Ala His Leu Thr Leu Met Pro Gly Thr Gly Val Leu Glu Gly Ala Ala Asp Gly Leu Ala Ala Ile Asn Pro Leu Lys

<210> 4914

<211> 236

<212> PRT

<213> Homo sapiens

<400> 537

Met Ser Ser Thr Glu Ser Ala Gly Arg Thr Ala Asp Lys Ser Pro Arg Gln Gln Val Asp Arg Leu Leu Val Gly Leu Arg Trp Arg Arg Leu Glu Glu Pro Leu Gly Phe Ile Lys Val Leu Gln Trp Leu Phe Ala Ile Phe Ala Phe Gly Ser Cys Gly Ser Tyr Ser Gly Glu Thr Gly Ala Met Val Arg Cys Asn Asn Glu Ala Lys Asp Val Ser Ser lle Ile Val Ala Phe Gly Tyr Pro Phe Arg Leu His Arg Ile Gln Tyr Glu Met Pro Leu Cys Asp Glu Gly Ser Ser Ser Lys Thr Met His Leu Met Gly Asp Phe Ser Ala Pro Ala Glu Phe Phe Val Thr Leu Gly 11e Phe Ser Phe Phe Tyr 

Thr Met Ala Ala Leu Val Ile Tyr Leu Arg Phe His Asn Leu Tyr Thr

Glu Asn Lys Arg Phe Pro Leu Val Asp Phe Cys Val Thr Val Ser Phe

Thr Phe Phe Trp Leu Val Ala Ala Ala Ala Trp Gly Lys Gly Leu Thr Asp Val Lys Gly Ala Thr Arg Pro Ser Ser Leu Thr Ala Ala Met Ser Val Cys His Gly Glu Glu Ala Val Cys Ser Ala Gly Ala Thr Pro Ser Met Gly Leu Ala Asn Ile Ser Val Val Arg Pro Val Ala Thr Ala Gly Ser Ser Thr Ser Pro Ala Ala Gln Ala Cys Pro Ser 

<210> 4915

<211> 390

<212> PRT

<213> Homo sapiens

<400> 538

Met Cys Ile Cys His Leu Pro Cys Arg Pro Val Lys Pro Asn Ile Ile Gly Glu Gln Ile Thr Ser Lys Met Gly Ala His Tyr His Cys Ile Ile Cys Ser Ala Thr Ile Thr Arg Arg Thr Asp Met Leu Gly His Val Arg Arg His Met Asn Lys Gly Glu Thr Lys Ser Ser Tyr Ile Ala Ala Ser Thr Ala Lys Pro Pro Lys Glu Ile Leu Lys Glu Ala Asp Thr Asp Val Gln Val Cys Pro Asn Tyr Ser Ile Pro Gln Lys Thr Asp Ser Tyr Phe Asn Pro Lys Met Lys Leu Asn Arg Gln Leu lle Phe Cys Thr Leu Ala Ala Leu Ala Glu Glu Arg Lys Pro Leu Glu Cys Leu Asp Ala Phe Gly

Ala Thr Gly Ile Met Gly Leu Gln Trp Ala Lys His Leu Gly Asn Ala

Val	Lys	Val	Thr	He	Asn	Asp	Leu	Asn	Glu	Asn	Ser	Val	Thr	Leu	He
145					150					155					160
Gln	Glu	Ser	Cys	His	Leu	Asn	Lys	Leu	Lys	Val	Val	Val	Asp	Ser	Lys
				165					170					175	
Glu	Lys	Glu	Lys	Ser	Asp	Asp	11e	Leu	Glu	Glu	Gly	Glu	Lys	Asn	Leu
			180					185					190		
Gly	Asn	Пе	Lys	Val	Thr	Lys	Met	Asp	Ala	Asn	Val	Leu	Met	His	Leu
		195					200					205			
Arg	Ser	Phe	Asp	Phe	Ile	His	Leu	Asp	Pro	Phe	Gly	Thr	Ser	Val	Asn
	210					215					220				
Tyr	Leu	Asp	Ser	Ala	Phe	Arg	Asn	He	Arg	Asn	Leu	Gly	Ile	Val	Ser
225					230					235					240
Val	Thr	Ser	Thr	Asp	He	Ser	Ser	Leu	Tyr	Ala	Lys	Ala	Gln	His	Va]
				245					250					255	
Ala	Arg	Arg	His	Tyr	Gly	Cys	Asn	He	Val	Arg	Thr	Glu	Tyr	Tyr	Lys
			260					265					270		
Glu	Leu	Ala	Ala	Arg	lle	Val	Val	Ala	Ala	Val	Ala	Arg	Ala	Ala	Ala
		275					280					285			
Arg	Cys	Asn	Lys	Gly	Ile	Glu	Val	Leu	Phe	Ala	Val	Ala	Leu	Glu	His
	290					295					300				
Phe	Val	Leu	Val	Val	Val	Arg	Val	Leu	Arg	Gly	Pro	Thr	Ser	Ala	Asp
305					310					315					320
Glu	Thr	Ala	Lys		He	Gln	Tyr	Leu		His	Cys	Gln	Trp	Cys	Glu
				325					330					335	
Glu	Arg	He	Phe	Gln	Lys	Asp	Gly	Asn	Met	Val	Glu	Asp	Tyr	Ser	Ala
			340					345					350		
Asn	Phe		lle	Ser	Tyr	Thr	Gly	Phe	Pro	Phe	Va]		Arg	Gln	Asp
		355					360					365			
He		Lys	Thr	His	He	Asp	Ser	Cys	Leu	Val	Thr	Va1	Met	Glu	Ala
	370					375					380				
Cys	Leu	Glu	Arg	Gln	Gln										
385					390										

<210> 4916

<211> 619

<212> PRT <213> Homo sapiens <400> 539 Met Ala Arg Leu Gln Arg Arg Ala Ser Gln Arg Arg Gln Gly Gly Thr Trp Gly Leu Arg Val Val Gln Glu Pro Gly Gly His Leu Tyr 11e Trp Leu Ala Ser Glu Lys Ala His Glu Arg Gln Arg Ala Val His Ser Cys Met Ile Leu Leu Lys Phe Leu Asn His Asn Gly Tyr Leu Asp Pro Lys Glu Asp Phe Lys Arg Ile Gly Gln Leu Val Gly Ile Leu Gly Met Leu Cys Gln Asp Pro Asp Arg Ala Thr Gln Arg Cys Ser Leu Glu Gly Ala Ser His Leu Tyr Gln Leu Leu Met Cys His Lys Arg Glu Ala Leu Gln Ala Glu Ser Gln Ala Pro Lys Glu Leu Ser Gln Ala His Ser Asp Gly Ala Pro Leu Trp Asn Ser Arg Asp Gln Lys Ala Thr Pro Leu Gly Pro Gln Glu Met Ala Lys Asn His Ile Phe Gln Leu Cys Ser Phe Gln Val lle Lys Asp lle Met Gln Gln Leu Thr Leu Ala Glu Leu Ser Asp Leu lle Trp Thr Ala lle Asp Gly Leu Gly Ser Thr Ser Pro Phe Arg Val Gln Ala Ala Ser Glu Met Leu Leu Thr Ala Val Gln Glu His Gly Ala Lys Leu Glu Ile Val Ser Ser Met Ala Gln Ala Ile Arg Leu Arg Leu Cys Ser Val His Ile Pro Gln Ala Lys Glu Lys Thr Leu His Ala Ile

Thr Leu Leu Ala Arg Ser His Thr Cys Glu Leu Val Ala Thr Phe Leu

Asn	He	Ser	Ile	Pro	Leu	Asp	Ser	His	Thr	Phe	Gln	Leu	Trp	Arg	Ala
			260					265					270		
Leu	Gly	Ala	Glu	Gln	Pro	Thr	Ser	His	Leu	Val	Leu	Thr	Thr	Leu	Leu
		275					280					285			
Ala	Cys	Leu	Gln	Glu	Arg	Pro	Leu	Pro	Thr	Gly	Ala	Ser	Asp	Ser	Ser
	290					295					300				
Pro	Cys	Pro	Lys	Glu	Lys	Thr	Tyr	Leu	Arg	Leu	Leu	Ala	Ala	Met	Asn
305					310					315					320
Met	Leu	His	Glu	Leu	Gln	Phe	Ala	Arg		Phe	Lys	Gln	Ala	Val	Gln
				325					330					335	
Glu	Gly	Tyr		Lys	Leu	Phe	Leu		Leu	Leu	Thr	Gln		His	Tyr
			340					345					350		
Val	Leu		Leu	Asn	Leu	Pro		Glu	Pro	Gln	Pro		Gln	G1n	Ala
		355				~	360			_	_	365			
GIn		Ala	Ala	Val	Pro	Ser	Pro	GIn	Ser	Cys		Thr	Ser	Leu	Glu
4.1	370	,	C			375	TI	TI	C1		380	,,,		DI	4.1
	Leu	Lys	Ser	Leu		Ser	Ihr	Ihr	Gly		Irp	HIS	Asp	Phe	
385	1	C1	1	C1	390	C	Т	C1	1	395	ть	ть	T1.	U2 .	400
nis	Leu	GIU	Leu	405	GIY	Ser	irp	Glu	410	rne	mr	Inr	11e	птs 415	Inr
Tyr	Pro	Lvc	Cly		Clv	Leu	Lou	Ala		ΔΙα	Mot	Val	Cln		Hic
1 y 1	110	Lys	420	141	Oly	Leu	Leu	425	лıg	пта	met	vai	430	лы	1115
Cvs	Arg	Gln		Pro	Ala	Val	Leu		Gln	Leu	Leu	Pro		Leu	Gln
0,3	шь	435	110	110	MIG	, , ,	440	m 8	0,11	Leu	1,00	445	001	Leu	0111
Ser	Pro		Glu	Arg	Glu	Arg		Val	Ala	Tle	Leu		Leu	Thr	Lvs
	450			0		455	_,				460				
Phe		Tyr	Ser	Pro	Val	Leu	Leu	Glu	Val	Leu	Pro	Lys	Gln	Ala	Ala
465					470					475					480
Leu	Thr	Val	Leu	Ala	Gln	Gly	Leu	His	Asp	Pro	Ser	Pro	Glu	Val	Arg
				485					490					495	
Val	Leu	Ser	Leu	Gln	Gly	Leu	Ser	Asn	Ile	Leu	Phe	His	Pro	Asp	Lys
			500					505					510		
Glu	Arg	Asp	Gly	He	Arg	Ala	Ala	Ala	Met	Ala	Leu	Phe	Gly	Asp	Leu
		515					520					525			
Val	Ala	Ala	Met	Ala	Asp	Arg	Glu	Leu	Ser	Gly	Leu	Arg	Thr	Gln	Val
	530					535					540				

His Gln Ser Met Val Pro Leu Leu Leu His Leu Lys Asp Gln Cys Pro 550 555 Ala Val Ala Thr Gln Ala Lys Phe Thr Phe Tyr Arg Cys Ala Val Leu 565 570 575 Leu Arg Trp Arg Leu Leu His Thr Leu Phe Cys Thr Leu Ala Trp Glu 590 580 585 Arg Gly Leu Ser Ala Arg His Phe Leu Trp Thr Cys Leu Ala Thr Pro 600 605 Ser Ala Thr Thr Pro Arg Pro Cys Ser Arg Cys 610 615

<210> 4917

<211> 1103

<212> PRT

<213> Homo sapiens

<400> 540

Met His Phe Leu Ala Ala Gln Asn Gln Phe Leu His Ser Pro Phe Leu

1 5 10 15

Glu Arg Pro Met Asp Met Pro Tyr Met Ile Phe Asp Pro Asn Asn Pro
20 25 30

Leu Met Thr Gly Gln Leu Leu Gly Ser Ser Leu Thr Gln Met Pro Pro
35 40 45

Gln Ala Ser Ser Ser His Thr Thr Ala Pro Thr Thr Val Ala Ala Ser 50 55 60

Leu Lys Arg Lys Leu Asp Asp Lys Glu Asp Asn Asn Cys Ser Glu Lys
65 70 75 80

Glu Gly Gly Asn Ser Gly Glu Asp Gln His Arg Asp Lys Arg Leu Arg 85 90 95

Thr Thr 11e Thr Pro Glu Gln Leu Glu 11e Leu Tyr Glu Lys Tyr Leu 100 105 110

Leu Asp Ser Asn Pro Thr Arg Lys Met Leu Asp His 11e Ala Arg Glu 115 120 125

Val Gly Leu Lys Lys Arg Val Val Gln Val Trp Phe Gln Asn Thr Arg

	130					135					140				
Ala	Arg	Glu	Arg	Lys	G1y	Gln	Phe	Arg	Ala	Val	Gly	Pro	Ala	Gln	Ser
145					150					155					160
His	Lys	Arg	Cys	Pro	Phe	Cys	Arg	Ala	Leu	Phe	Lys	Ala	Lys	Ser	Ala
				165					170					175	
Leu	Glu	Ser	His	He	Arg	Ser	Arg	His	Trp	Asn	Glu	Gly	Lys	Gln	Ala
			180					185					190		
Gly	Tyr	Ser	Leu	Pro	Pro	Ser	Pro	Leu	He	Ser	Thr	Glu	Asp	Gly	Gly
		195					200					205			
Glu	Ser	Pro	Gln	Lys	Tyr	lle	Tyr	Phe	Asp	Tyr	Pro	Ser	Leu	Pro	Leu
	210					215					220				
Thr	Lys	Ile	Asp	Leu	Ser	Ser	Glu	Asn	Glu	Leu	Ala	Ser	Thr	Val	Ser
225					230					235					240
Thr	Pro	Val	Ser	Lys	Thr	Ala	Glu	Leu	Ser	Pro	Lys	Asn	Leu	Leu	Ser
				245					250					255	
Pro	Ser	Ser	Phe	Lys	Ala	Glu	Cys	Ser	Glu	Asp	Val	Glu	Asn	Leu	Asn
			260					265					270		
Ala	Pro	Pro	Ala	Glu	Ala	Gly	Tyr	Asp	Gln	Asn	Lys	Thr	Asp	Phe	Asp
		275					280					285			
Glu	Thr	Ser	Ser	lle	Asn	Thr	Ala	lle	Ser	Asp	Ala	Thr	Thr	Gly	Asp
	290					295					300				
Glu	Gly	Asn	Thr	Glu	Met	Glu	Ser	Thr	Thr	Gly	Ser	Ser	Gly	Asp	Val
305					310					315					320
Lys	Pro	Ala	Leu	Ser	Pro	Lys	Glu	Pro	Lys	Thr	Leu	Asp	Thr	Leu	Pro
				325					330					335	
Lys	Pro	Ala	Thr	Thr	Pro	Thr	Thr	Glu				Asp	Lys	Phe	Leu
			340						•				350		
Phe	Ser		Thr	Ser	Pro	Ser		His	Phe	Asn	Asp		Asp	Gly	Asp
		355					360					365			
His		Gln	Ser	Phe	Tyr		Thr	Asp	Asp	Pro		Asp	Asn	Ala	Asp
	370			_	_	375				_	380	_			ъ.
	Ser	Glu	Thr	Ser		He	Ala	Asp	Pro		Ser	Pro	Asn	Pro	
385	_				390		_		_	395					400
Gly	Ser	Ser	Asn		Phe	Lys	Ser	Lys		Asn	Asp	Arg	Pro		His
		DI.		405	٥.			•	410	0.1			17 1	415	,
Lys	Arg	Phe	Arg	lhr	GIn	Met	Ser	Asn	Leu	GIn	Leu	Lys	Val	Leu	Lys

			420					425					430		
Ala	Cys	Phe	Ser	Asp	Tyr	Arg	Thr	Pro	Thr	Met	G1n	Glu	Cys	Glu	Met
		435					440					445			
Leu	Gly	Asn	Glu	Пе	Gly	Leu	Pro	Lys	Arg	Val	Val	G1n	Val	Trp	Phe
	450					455					460				
Gln	Asn	Ala	Arg	Ala	Lys	Glu	Lys	Lys	Phe	Lys	He	Asn	He	Gly	Lys
465					470					475					480
Pro	Phe	Met	Пе	Asn	Gln	Gly	Gly	Thr	Glu	Gly	Thr	Lys	Pro	Glu	Cys
				485					490					495	
Thr	Leu	Cys	G1y	Val	Lys	Tyr	Ser	Ala	Arg	Leu	Ser	Ile	Arg	Asp	His
			500					505					510		
Tle	Phe	Ser	Lys	Gln	His	He	Ser	Lys	Val	Arg	Glu	Thr	Val	Gly	Ser
		515					520					525			
Gln	Leu	Asp	Arg	Glu	Lys	Asp	Tyr	Leu	Ala	Pro	Thr	Thr	Val	Arg	Gln
	530					535					540				
Leu	Met	Ala	Gln	Gln	Glu	Leu	Asp	Arg	He	Lys	Lys	Ala	Ser	Asp	Val
545					550					555					560
Leu	Gly	Leu	Thr	Val	Gln	Gln	Pro	Gly	Met	Met	Asp	Ser	Ser	Ser	Leu
				565					570					575	
His	Gly	He	Ser	Leu	Pro	Thr	Ala	Tyr	Pro	Gly	Leu	Pro	Gly	Leu	Pro
His	Gly	He	Ser 580	Leu	Pro	Thr	Ala	Tyr 585	Pro	Gly	Leu	Pro	Gly 590	Leu	Pro
			580	•				585				Pro Leu	590		
			580	•				585					590		
Pro	Val	Leu 595	580 Leu	Pro	Gly	Met	Asn 600	585 Gly	Pro	Ser	Ser	Leu	590 Pro	Gly	.Phe
Pro	Val	Leu 595	580 Leu	Pro	Gly	Met	Asn 600	585 Gly	Pro	Ser	Ser	Leu 605	590 Pro	Gly	.Phe
Pro	Val Gln 610	Leu 595 Asn	580 Leu Ser	Pro Asn	Gly Thr	Met Leu 615	Asn 600 Thr	585 Gly Pro	Pro Pro	Ser Gly	Ser Ala 620	Leu 605	590 Pro Met	G1y Leu	.Phe Gly
Pro	Val Gln 610	Leu 595 Asn	580 Leu Ser	Pro Asn	Gly Thr	Met Leu 615 Ser	Asn 600 Thr	585 Gly Pro	Pro Pro	Ser Gly	Ser Ala 620	Leu 605 Gly	590 Pro Met	G1y Leu	.Phe Gly
Pro Pro Phe 625	Val Gln 610 Pro	Leu 595 Asn Thr	580 Leu Ser Ser	Pro Asn Ala	Gly Thr Thr 630	Met Leu 615 Ser	Asn 600 Thr Ser	585 Gly Pro	Pro Pro Ala	Ser Gly Leu 635	Ser Ala 620 Ser	Leu 605 Gly Leu	590 Pro Met Ser	Gly Leu Ser	.Phe Gly
Pro Pro Phe 625 Pro	Val Gln 610 Pro Thr	Leu 595 Asn Thr	580 Leu Ser Ser Pro	Pro Asn Ala Leu 645	Gly Thr Thr 630 Leu	Met Leu 615 Ser Gln	Asn 600 Thr Ser	585 Gly Pro Pro	Pro Pro Ala Pro 650	Ser Gly Leu 635 Pro	Ser Ala 620 Ser Pro	Leu 605 Gly Leu Pro	590 Pro Met Ser	Gly Leu Ser Pro 655	.Phe Gly Ala 640 Pro
Pro Pro Phe 625 Pro	Val Gln 610 Pro Thr	Leu 595 Asn Thr	580 Leu Ser Ser Pro	Pro Asn Ala Leu 645	Gly Thr Thr 630 Leu	Met Leu 615 Ser Gln	Asn 600 Thr Ser	585 Gly Pro Pro	Pro Pro Ala Pro 650	Ser Gly Leu 635 Pro	Ser Ala 620 Ser Pro	Leu 605 Gly Leu	590 Pro Met Ser	Gly Leu Ser Pro 655	.Phe Gly Ala 640 Pro
Pro Phe 625 Pro	Val Gln 610 Pro Thr	Leu 595 Asn Thr Lys	580 Leu Ser Ser Pro Pro 660	Pro Asn Ala Leu 645 Ser	Gly Thr Thr 630 Leu Ser	Met Leu 615 Ser Gln Ser	Asn 600 Thr Ser Thr	585 Gly Pro Pro Pro Ser 665	Pro Pro Ala Pro 650 Gly	Ser Gly Leu 635 Pro Gln	Ser Ala 620 Ser Pro Gln	Leu 605 Gly Leu Pro	590 Pro Met Ser Pro Glu 670	Gly Leu Ser Pro 655 Gln	Phe Gly Ala 640 Pro Gln
Pro Phe 625 Pro	Val Gln 610 Pro Thr	Leu 595 Asn Thr Lys Pro	580 Leu Ser Ser Pro Pro 660	Pro Asn Ala Leu 645 Ser	Gly Thr Thr 630 Leu Ser	Met Leu 615 Ser Gln Ser	Asn 600 Thr Ser Thr Leu Gln	585 Gly Pro Pro Pro Ser 665	Pro Pro Ala Pro 650 Gly	Ser Gly Leu 635 Pro Gln	Ser Ala 620 Ser Pro Gln	Leu 605 Gly Leu Pro Thr	590 Pro Met Ser Pro Glu 670	Gly Leu Ser Pro 655 Gln	Phe Gly Ala 640 Pro Gln
Pro Phe 625 Pro Pro Asn	Val Gln 610 Pro Thr Pro	Leu 595 Asn Thr Lys Pro Glu 675	580 Leu Ser Ser Pro 660 Ser	Pro Asn Ala Leu 645 Ser Glu	Gly Thr Thr 630 Leu Ser Lys	Met Leu 615 Ser Gln Ser	Asn 600 Thr Ser Thr Leu Gln 680	585 Gly Pro Pro Pro Ser 665 Thr	Pro Pro Ala Pro 650 Gly Lys	Ser Gly Leu 635 Pro Gln Pro	Ser Ala 620 Ser Pro Gln Asn	Leu 605 Gly Leu Pro Thr	590 Pro Met Ser Pro Glu 670 Val	Gly Leu Ser Pro 655 Gln Lys	Phe Gly Ala 640 Pro Gln Lys
Pro Phe 625 Pro Pro Asn	Val Gln 610 Pro Thr Pro Lys	Leu 595 Asn Thr Lys Pro Glu 675	580 Leu Ser Ser Pro 660 Ser	Pro Asn Ala Leu 645 Ser Glu	Gly Thr Thr 630 Leu Ser Lys	Met Leu 615 Ser Gln Ser Lys	Asn 600 Thr Ser Thr Leu Gln 680	585 Gly Pro Pro Pro Ser 665 Thr	Pro Pro Ala Pro 650 Gly Lys	Ser Gly Leu 635 Pro Gln Pro	Ser Ala 620 Ser Pro Gln Asn Glu	Leu 605 Gly Leu Pro Thr	590 Pro Met Ser Pro Glu 670 Val	Gly Leu Ser Pro 655 Gln Lys	Phe Gly Ala 640 Pro Gln Lys
Pro Phe 625 Pro Pro Asn	Val Gln 610 Pro Thr Pro Lys Lys 690	Leu 595 Asn Thr Lys Pro Glu 675 Glu	580 Leu Ser Ser Pro 660 Ser Glu	Pro Asn Ala Leu 645 Ser Glu Glu	Gly Thr Thr 630 Leu Ser Lys Leu	Met Leu 615 Ser Gln Ser Lys Glu 695	Asn 600 Thr Ser Thr Leu Gln 680 Ala	585 Gly Pro Pro Ser 665 Thr	Pro Pro Ala Pro 650 Gly Lys Lys	Ser Gly Leu 635 Pro Gln Pro	Ser Ala 620 Ser Pro Gln Asn Glu 700	Leu 605 Gly Leu Pro Thr	590 Pro Met Ser Pro Glu 670 Val	Gly Leu Ser Pro 655 Gln Lys	Phe Gly Ala 640 Pro Gln Lys Lys

705					710					715					720
Gly	Glu	Thr	His	Val	Asp	Pro	Пe	Gln	Leu	Gln	Ala	Leu	Gln	Asn	Ala
				725					730					735	
lle	Ala	Gly	Asp	Pro	Ala	Ser	Phe	lle	Gly	G1 y	Gln	Phe	Leu	Pro	Tyr
			740					745					750		
Phe	He	Pro	Gly	Phe	Ala	Ser	Tyr	Phe	Thr	Pro	Gln	Leu	Pro	Gly	Thr
		755					760					765			
Val	Gln	Gly	Gly	Tyr	Phe	Pro	Pro	Val	Cys	Gly	Met	Glu	Ser	Leu	Phe
	770					775					780				
Pro	Tyr	Gly	Pro	Thr	Met	Pro	Gln	Thr	Leu	Ala	Gly	Leu	Ser	Pro	Gly
785					790					795					800
Ala	Leu	Leu	Gln	Gln	Tyr	Gln	Gln	Tyr	Gln	Gln	Asn	Leu	G1n	Glu	Ser
				805					810					815	
Leu	Gln	Lys	Gln	Gln	Lys	Gln	Gln	Gln	Glu	Gln	Gln	Gln	Lys	Pro	Ala
			820					825					830		
Gln	Ala	Lys	Thr	Ser	Lys	Val	Glu	Ser	Asp	Gln	Pro	Gln	Asn	Ser	Asn
		835					840					845			
Asp	Ala	Ser	Glu	Thr	Lys	Glu	Asp	Lys	Ser	Thr	Ala	Thr	Glu	Ser	Thr
	850					855					860				
Lys	Glu	Glu	Pro	Gln	Leu	Glu	Ser	Lys	Ser	Ala	Asp	Phe	Ser	Asp	Thr
865					870					875					880
Tyr	Val	Val	Pro	Phe	Val	Lys	Tyr	Glu	Phe	He	Cys	Arg	Lys	Cys	Gln
				885					890					895	
Met	Met	Phe	Thr	Asp	Glu	Asp	Ala	Ala	Val	Asn	His	Gln	Lys	Ser	Phe
			900					905					910		
Cys	Tyr	Phe	Gly	Gln	Pro	Leu	Ile	Asp	Pro	Gln	Glu	Thr	Val	Leu	Arg
		915					920	,				925			
Val	Pro	Val	Ser	Lys	Tyr	Gln	Cys	Leu	Ala	Cys	Asp	Val	Ala	lle	Ser
	930					935					940				
Gly	Asn	Glu	Λla	Leu	Ser	Gln	His	Leu	Gln	Ser	Ser	Leu	His	Lys	Glu
945					950					955					960
Lys	Thr	lle	Lys	Gln	Ala	Met	Arg	Asn	Ala	Lys	Glu	His	Val	Arg	Leu
				965					970					975	
Leu	Pro	His	Ser	Val	Cys	Ser	Pro	Asn	Pro	Asn	Thr	Thr	Ser	Thr	Ser
			980					985					990		
Gln	Ser	Ala	Ala	Ser	Ser	Asn	Asp	Thr	Tyr	Pro	Hie	Leu	Ser	Cve	Pho

Ser Met Lys Ser Trp Pro Asn Ile Leu Phe Gln Ala Ser Ala Arg Arg Ala Ala Ser Pro Pro Ser Ser Pro Pro Ser Leu Ser Leu Pro Ser Thr Val Thr Ser Ser Leu Cys Ser Thr Ser Gly Val Gln Thr Ser Leu Pro Thr Glu Ser Cys Ser Asp Glu Ser Asp Ser Glu Leu Ser Gln Lys Leu Glu Asp Leu Asp Asn Ser Leu Glu Val Lys Ala Lys Pro Ala Ser Gly Leu Asp Gly Asn Phe Asn Ser Ile Arg Met Asp Met Phe Ser Val <210> 4918 <211> 727 <212> PRT <213> Homo sapiens <400> 541 Met Gln Gln Lys Thr Lys Leu Phe Pro Gln Ala Leu Lys Tyr Ser lle Pro His Leu Gly Lys Cys Met Gln Lys Gln His Leu Asn His Tyr Asn Phe Ala Asp His Cys Tyr Asn Arg Ile Lys Leu Lys Lys Tyr His Leu Thr Lys Cys Leu Gln Asn Lys Pro Lys Ile Ser Glu Leu Ala Arg Asn lle Pro Ser Arg Ser Phe Ser Cys Lys Asp Leu Gln Pro Val Lys Gln Glu Asn Glu Lys Pro Leu Pro Glu Asn Thr Asp Ala Phe Glu Lys Val 

Arg Thr Lys Leu Glu Thr Gln Pro Gln Glu Glu Tyr Glu Ile Ile Asn

Val	Glu	Val	Lys	His	Gly	Gly	Phe	Val	Tyr	Tyr	Gln	Glu	Gly	Cys	Cys
		115					120					125			
Leu	Val	Arg	Ser	Lys	Asp	Glu	Glu	Ala	Asp	Asn	Asp	Asn	Tyr	Glu	Val
	130					135					140				
Leu	Phe	Asn	Leu	Glu	Glu	Leu	Lys	Leu	Asp	Gln	Pro	Phe	He	Asp	Cys
145					150					155					160
He	Arg	Val	Ala	Pro	Asp	Glu	Lys	Tyr	Va1	Ala	Ala	Lys	lle	Arg	Thr
				165					170					175	
Glu	Asp	Ser	Glu	Ala	Ser	Thr	Cys	Val	lle	He	Lys	Leu	Ser	Asp	Gln
			180					185					190		
Pro	Val	Met	Glu	Ala	Ser	Phe	Pro	Asn	Val	Ser	Ser	Phe	Glu	Trp	Val
		195					200					205			
Lys	Asp	G]u	Glu	Asp	Glu	Asp	Va1	Leu	Phe	Tyr	Thr	Phe	Gln	Arg	Asn
	210					215					220				
Leu	Arg	Cys	His	Asp	Val	Tyr	Arg	Ala	Thr	Phe	Gly	Asp	Asn	Lys	Arg
225					230					235					240
Asn	Glu	Arg	Phe	Tyr	Thr	Glu	Lys	Asp	Pro	Ser	Tyr	Phe	Val	Phe	Leu
				245					250					255	
Tyr	Leu	Thr	Lys	Asp	Ser	Arg	Phe	Leu	Thr	lle	Asn	lle	Met	Asn	Lys
			260					265					270		
Thr	Thr	Ser	Glu	Val	Trp	Leu	lle	Лsp	Gly	Leu	Ser	Pro	Trp	Asp	Pro
		275					280					285			
Pro		Leu	lle	Gln	Lys	Arg	lle	His	Gly	He	Leu	Tyr	Tyr	Val	G1u
	290					295					300				
His	Arg	Asp	Asp	Glu		Tyr	lle	Leu	Thr		Val	Gly	Glu	Pro	
305					310					315					320
Glu	Phe	Lys	Leu		Arg	Thr	Ala	Ala		Thr	Pro	Ala	He		Asn
_				325					330					335	
Тгр	Asp	Leu		Phe	Thr	Met	Lys	_	Asn	Thr	Lys	Val		Asp	Leu
			340					345					350		_
Asp	Met	Phe	Lys	Asp	His	Cys		Leu	Phe	Leu	Lys		Ser	Asn	Leu
	Tr.	355		12 1		6.1	360				C	365		C	
Leu		Va1	Asn	val	116		Leu	Ala	Asp	Asp		val	Arg	ser	Leu
	370	D	D	т	Д 1 .	375	C1.	Di	7.1	Max	380	ть	Λ	C	Λ
185 385	Leu	Pro	1.10	тър	A1a 390	cys	OIŸ	rne	116	меі 395	лѕр	ınr	ASN	ser	
355					<b>590</b>					0.95					400

Pro	Lys	Asn	Cys	Pro	Phe	Gln	Leu	Cys	Ser	Pro	He	Arg	Pro	Pro	Lys
				405					410					415	
Tyr	Tyr	Thr	Tyr	Lys	Phe	Ala	Glu	Gly	Lys	Leu	Phe	Glu	Glu	Thr	Gly
			420					425					430		
His	Glu	Asp	Pro	lle	Thr	Lys	Thr	Ser	Arg	Val	Leu	Arg	Leu	Glu	Ala
		435					440					445			
Lys	Ser	Lys	Asp	Gly	Lys	Leu	Val	Pro	Met	Thr	Val	Phe	His	Lys	Thr
	450					455					460				
Asp	Ser	Glu	Asp	Leu	Gln	Lys	Lys	Pro	Leu	Leu	Val	His	Val	Tyr	Gly
465					470					475					480
Ala	Tyr	Gly	Met	Asp	Leu	Lys	Met	Asn	Phe	Arg	Pro	Glu	Arg	Arg	Va]
				485					490					495	
Leu	Val	Asp	Asp	Gly	Trp	He	Leu	Ala	Tyr	Cys	His	Val	Arg	Gly	Gly
			500					505					510		
Gly	G1u	Leu	Gly	Leu	Gln	Trp	His	Ala	Asp	Gly	Arg		Thr	Lys	Lys
		515					520					525			
Leu		Gly	Leu	Ala	Asp	Leu	Glu	Ala	Cys	Ile	Lys	Thr	Leu	His	Gly
	530					535					540				
Gln	Gly	Phe	Ser	Gln		Ser	Leu	Thr	Thr		Thr	Ala	Phe	Ser	
545					550					555					560
Gly	Gly	Val	Leu		Gly	Ala	Leu	Cys		Ser	Asn	Pro	Glu		Val
				565					570					575	
Arg	Ala	Va]		Leu	Glu	Ala	Pro		Leu	Asp	Val	Leu		Thr	Met
			580					585					590	_	
Met	Asp		Thr	Leu	Pro	Leu		Leu	Glu	Glu	Leu		Glu	Trp	Gly
	_	595	_				600					605			
Asn		Ser	Ser	Asp	Glu	Lys	His	Lys	Asn	Tyr		Lys	Arg	Tyr	Cys
	610	0.3				615			<b></b>	Б	620				m.
	Tyr	GIn	Asn	He		Pro	GIn	His	Tyr		Ser	He	His	He	
625	Tr.	6.1			630			Б		635	01		17. 1	C	640
Ala	lyr	Glu	Asn		6]u	Arg	Val	Pro		Lys	ыу	He	Va1		lyr
m.	6.1	,		645	C.I	. 1			650		. 1	,		655	C.1
Ihr	Glu	Lys		Lys	Glu	Ala	11e		GIu	His	Ala	Lys		Ihr	Gly
C 1	C1	т	660	ть.	D.	Λ.	11.1	665	1	Δ	11.	C1.	670	C1.	C1.
61u	ыу		GIn	Inr	Pro	Asn		11e	Leu	Asp	116		rro	Gly	ыу
		675					680					685			

Asn His Val lle Glu Asp Ser His Lys Lys lle Thr Ala Gln Ile Lys	3
690 695 700	
Phe Leu Tyr Glu Glu Leu Gly Leu Asp Ser Thr Ser Val Phe Glu Asp	
705 710 715 720	)
Leu Lys Lys Tyr Leu Lys Phe	
725	
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1 5 10 15	
lle Ser Ser Glu Gly Gln Glu Pro Arg Ala Asp Pro Glu Pro Pro Gly	<i>y</i>
20 25 30	
Leu Ala Ala Gly Leu Val Gln Gln Asp Leu Val Phe Glu Val Glu Thr	r
35 40 45	
Pro Ala Val Leu Pro Glu Pro Val Pro Gln Glu Asp Gly Val Asp Leu	1
50 55 60	
Leu Gly Leu His Ser Glu Val Gly Ala Gly Pro Ala Val Pro Pro Glr	1
65 70 75 80	
Ala Cys Lys Ala Pro Ser Ser Asn Thr Asp Leu Leu Ser Cys Leu Leu	J
85 90 95	
Gly Pro Pro Glu Ala Ala Ser Gln Gly Pro Pro Glu Asp Leu Leu Sei	r
100 105 110	
Glu Asp Pro Leu Leu Leu Ala Ser Pro Ala Pro Pro Leu Ser Val Glr	า
115 120 125	
Ser Thr Pro Arg Gly Gly Pro Pro Ala Ala Ala Asp Pro Phe Gly Pro	)
130 135 140	
Leu Leu Pro Ser Ser Gly Asn Asn Ser Gln Pro Cys Ser Asn Pro Asp	
145 150 155 160	
Leu Phe Gly Glu Phe Leu Asn Ser Asp Ser Val Thr Val Pro Pro Ser	r

Phe Pro Ser Ala His Ser Ala Pro Pro Pro Ser Cys Ser Ala Asp Phe Leu His Leu Gly Asp Leu Pro Gly Glu Pro Ser Lys Met Thr Ala Ser Ser Ser Asn Pro Asp Leu Leu Gly Gly Trp Ala Ala Trp Thr Glu Thr Ala Ala Ser Ala Val Ala Pro Thr Pro Ala Thr Glu Gly Ser Pro Ala Gly Phe Pro Pro Gly Gly Phe 11e Pro Lys Thr Ala Thr Thr Pro Lys Gly Ser Ser Ser Trp Gln Thr Ser Arg Pro Pro Ala Gln Gly Ala Ser Trp Pro Pro Gln Ala Lys Pro Pro Pro Lys Ala Cys Thr Gln Pro Arg Pro Asn Tyr Ala Ser Asn Phe Ser Val lle Gly Ala Arg Glu Glu Arg Gly Val Arg Ala Pro Ser Phe Gly Glu Ser Pro Thr Leu Cys Cys Gly Val Cys Arg Asp Leu Pro Glu Leu Ala Lys Gly Arg Thr Tyr Val Val Phe Phe Ile Ser Glu Pro Ser Pro Gly Thr Gly Thr Ala Lys Pro Leu Arg Glu Arg Arg Gly Phe Arg Cys Val Phe Thr Gly Leu Ser Leu Gly Gln Ala Ser Gly Ser Leu Leu Phe Gln 

<210> 4920

<211> 168

<212> PRT

<213> Homo sapiens

<400> 543

Met Glu Glu Ile Arg Phe Pro Arg Thr Leu Gly Pro Glu Ala Lys Ser

1 5 10 15

Leu Leu Ser Gly Leu Leu Lys Lys Asp Pro Lys Gln Arg Leu Gly Gly 25 Gly Ser Glu Asp Ala Lys Glu Ile Met Gln His Arg Phe Phe Ala Gly 45 40 Ile Val Trp Gln His Val Tyr Glu Lys Lys Val Arg Leu Leu Pro Ala 55 60 Tyr Ser Arg Ala Arg Met Leu Pro Thr Tyr Pro His Ser Arg Met His 70 75 Val Ala Arg Ser Pro Asp Phe Pro His Thr Arg Pro His Leu Arg Ser 90 95 85 Leu Leu Gln Ser Trp Tyr Lys Glu Gly Leu Ala Ala Pro Thr Ser Ala 100 105 Pro Gly Ala Gln Arg Leu Trp His Cys Arg Val Pro Pro Gly Asn Trp 120 125 Pro Gly Pro His Phe Leu Leu Pro Ser Glu Val Cys His Thr Leu Ser 140 130 135 Phe Leu Leu Pro Ser Glu Val Cys His Thr Leu Ser Ala Ser Leu Gly 150 160 155 Val Pro Phe Pro Asp Ala Val Gln 165

<210> 4921

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<212> PRT

<213> Homo sapiens

<400> 544

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Lys Ser Gly Leu Leu Val Gly Ala Glu Ala Gly Gly Ser Ala Ala Asp 20 25 30

Gly Val Thr Pro Pro Gln Glu Cys Ile Leu Ser Gly Ile Met Ser Val 35 40 45

Asn Gly Lys Lys Val Leu His Met Asp Arg Asn Pro Tyr Tyr Gly Gly
50 55 60

Glu Ser Ser Ser Ile Thr Pro Leu Glu Glu Leu Tyr Lys Arg Phe Gln 70 . Leu Leu Glu Gly Pro Pro Glu Ser Met Gly Arg Gly Arg Asp Trp Asn 85 90 Val Asp Leu Ile Pro Lys Phe Leu Met Ala Asn Gly Gln Leu Val Lys 105 100 Met Leu Leu Tyr Thr Glu Val Thr Arg Tyr Leu Asp Phe Lys Val Val 120 125 Glu Gly Ser Phe Val Tyr Lys Gly Gly Lys Ile Tyr Arg Val Pro Ser 135 140 130 Thr Glu Thr Glu Ala Leu Ala Ser Asn Leu Met Gly Met Phe Glu Lys 150 155 Arg Arg Phe Arg Lys Phe Leu Val Phe Val Ala Asn Phe Asp Glu Asn 165 170 Asp Pro Lys Thr Phe Glu Gly Val Asp Pro Gln Thr Thr Ser Met Arg 180 185 190 Asp Val Tyr Arg Lys Phe Asp Leu Gly Gln Asp Val Ile Asp Phe Thr 200 205 Gly His Ala Leu Ala Leu Tyr Arg Thr Asp Glu 210 215

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<211> 419

<212> PRT

<213> Homo sapiens

<400> 545

 Met
 Leu
 Arg
 Cys
 Phe
 His
 Ser
 Lys
 Gly
 Val
 Asn
 Tyr
 11e
 Asn
 Phe
 Ser

 1
 5
 5
 10
 15
 15

 Ala
 Thr
 Gly
 Lys
 Leu
 Leu
 Val
 Ser
 Val
 Ala
 Asp
 Pro
 Glu
 His
 Thr

 1
 20
 25
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 30
 30
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 41a
 Ser
 Arg
 Gly
 Ala
 Lys
 Val
 Ala
 Ser
 Arg
 Gly
 Ala
 Ala
 Lys
 Val
 Ala
 Ser
 Arg
 Gly

 Gly
 His
 Leu
 Glu
 Arg
 Ile
 Phe
 Val
 Val
 Glu
 Phe
 Arg
 Pro
 Asp
 Ser
 Asp

 Gly
 His
 Leu
 Glu
 Arg
 Ile
 Phe
 Val
 Val
 Glu
 Phe
 Arg
 Pro
 Asp
 Asp
 Asp
 Asp
 Asp
 Asp
 As

	Gln	Phe	Val	Ser	Val	Gly	Val	Lys	His		Lys	Phe	Trp	Thr	Leu
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Ala	Gly	Ser	Ala	Leu	Leu	Tyr	Lys	Lys	G1 y	Val	lle	Gly	Ser	Leu	Gly
				85					90					95	
Ala	Ala	Lys	Met	Gln	Thr	Met	Leu	Ser	Val	Ala	Phe	Gly	Ala	Asn	Asn
			100					105					110		
Leu	Thr		Thr	Gly	Ala	He		Gly	Asp	Val	Tyr		Trp	Lys	Asp
		115					120					125			
His		Leu	He	Arg	Leu		Ala	Lys	Ala	His	Thr	Gly	Pro	Val	Phe
	130					135					140				
Thr	Met	Tyr	Thr	Thr		Arg	Asp	Gly	Leu		Val	Thr	Gly	Gly	
145					150					155					160
Glu	Arg	Pro	Thr		Glu	Gly	Gly	Ala	Va]	Lys	Leu	Trp	Asp		Glu
				165					170					175	
Met	Lys	Arg		Arg	Ala	Phe	Gln		Glu	Thr	Gly	Gln		Va]	Glu
			180					185					190		
Cys	Val		Ser	Val	Cys	Arg		Lys	G1 y	Lys	He		Val	Gly	Thr
		195					200					205			
Lys		Gly	Glu	He	He		Val	Gly	Glu	Lys		Ala	Ala	Ser	Asn
	210					215					220				
	Leu	lle	Asp	Gly		Met	Glu	Gly	Glu		Trp	Gly	Leu	Ala	
225	_				230			_		235					240
His	Pro	Ser	Lys		Leu	Phe	He	Ser	Ala	Ser	Asn	Asp	G1 y		Ala
	~ .			245					250					255	
Arg	He	Trp		Leu	Ala	Asp	Lys		Leu	Leu	Asn	Lys		Ser	Leu
0.1	,,,		260		0			265	6	10		0.1	270		,, ,
61 y	HIS		Ala	Arg	Cys	Ala		lyr	Ser	Pro	Asp		GJu	Met	Val
		275				61	280	DI	V. 1	1.1	,	285	12 T		C
Ala		ыу	мет	Lys	Asn		GIU	rne	Val	116		Leu	vai	Asn	Ser
,	290	V 1	т	CI	i	295	Α.	4	Δ.	,	300	41.	11.	C1	4
	Lys	vai	rp	61 y		Lys	Arg	Asp	Arg		Ser	АТа	116	GIN	
305	۸	11.	C	Dres	310	۸	۸	DI	1	315	V = 1	C1	C	Carr	320
116	vil	116	ser		ASP	ASII	Arg	rne	Leu	Ala	val	01 y	ser		oju
Hi c	Thr	Vol	Acr	325	Tur	Aan	Lov	The	330 Gln	C1	The	Acr	Lou	335	A 22.00

Ile Gly Tyr Cys Lys Asp Ile Pro Ser Phe Val Ile Gln Met Asp Phe Ser Ala Asp Gly Glu Tyr Ile Gln Met Gln Leu Thr Leu Leu Val Gly Asn His Thr Gln Arg Thr Ala lle Leu Gly Leu Trp Lys Ile Ala Arg Lys Trp Met Arg Arg Lys Met Gly Lys Trp Pro Ala Val Val Met Gly Trp Pro

<210> 4923

<211> 699

<212> PRT

<213> Homo sapiens

<400> 546

Met Asn Thr Phe Gln Ala Ser Val Ser Phe Gln Asp Val Thr Val Glu Phe Ser Gln Glu Glu Trp Gln His Met Gly Pro Val Glu Arg Thr Leu Tyr Arg Asp Val Met Leu Glu Asn Tyr Ser His Leu Val Ser Val Gly Tyr Cys Phe Thr Lys Pro Glu Leu Ile Phe Thr Leu Glu Gln Gly Glu Asp Pro Trp Leu Leu Glu Lys Glu Lys Gly Phe Leu Ser Arg Asn Ser Pro Glu Asp Ser Gln Pro Asp Glu Ile Ser Glu Lys Ser Pro Glu Asn Gln Gly Lys His Leu Leu Gln Val Leu Phe Thr Asn Lys Leu Leu Thr Thr Glu Gln Glu Ile Ser Gly Lys Pro His Asn Arg Asp Ile Asn Ile

Phe Arg Ala Arg Met Met Pro Cys Lys Cys Asp Ile Ala Gly Ser Ala

	130					135					140				
Cys	Gln	Gly	Leu	Ser	Leu	Met	Ala	Pro	His	Cys	Gln	Tyr	Ser	Lys	Glu
145					150					155					160
Lys	Лlа	His	Glu	Arg	Asn	Val	Cys	Asp	Lys	Trp	Leu	He	Ser	11e	Lys
				165					170					175	
Asp	Gly	Arg	Thr	Asn	Thr	Gln	Glu	Lys	Ser	Phe	Ala	Tyr	Ser	Lys	lle
			180					185					190		
Val	Lys	Thr	Leu	His	His	Lys	Glu	Glu	Val	Ile	Gln	His	Gln	Thr	He
		195					200					205			
Gln	Thr	Leu	Gly	Gln	Asp	Phe	Glu	Tyr	Asn	Glu	Ser	Arg	Lys	Ala	Phe
	210					215					220				
Leu	Glu	Lys	Ala	Ala	Leu	Val	Thr	Ser	Asn	Ser	Thr	His	Pro	Lys	Gly
225					230					235					240
Lys	Ser	Tyr	Asn	Phe	Asn	Lys	Phe	Gly	Glu	Asn	Lys	Tyr	Asp	Lys	Ser
				245					250					255	
Thr	Phe	He	lle	Pro	Gln	Asn	Met	Asn	Pro	Glu	Lys	Ser	His	Tyr	Glu
			260					265					270		
Phe	Asn	Asp	Thr	Gly	Asn	Cys	Phe	Cys	Arg	lle	Thr	His	Lys	Thr	Leu
		275					280					285			
Thr	Gly	Gly	Lys	Ser	Phe	Ser	Gln	Lys	Ser	His	He	Arg	Glu	His	His
	290					295					300				
Arg	Val	His	He	Gly	Val	Lys	Pro	Phe	Glu	Tyr	Gly	Lys	Ser	Phe	Asn
305					310					315					320
Arg	Asn	Ser	Thr		Pro	Val	His	Gln		Thr	His	Ala	Thr		Lys
				325					330					335	
Tyr	Ser	Asp	Tyr	His	Pro	Cys	Thr	Glu	Thr	Phe	Ser	Tyr	Gln	Ser	Thr
			340					345					350		
Phe	Ser		His	Gln	Lys	Val		He	Arg	Ala	Lys		Tyr	Glu	Tyr
		355			_	_	360			_		365		_	
Asn	Glu	Cys	Gly	Lys	Ser		Ser	Met	Asn	Ser		Leu	He	Trp	Pro
	370	_				375		_	_		380				
	Lys	Ser	His	Thr		Glu	Lys	Pro	Tyr		Cys	Pro	Glu	Cys	
385					390					395					400
Lys	Ala	Phe	Ser		Lys	Ser	Arg	Leu		Lys	His	GIn	Arg		His
	a -			405	<b></b>		_		410	_	_			415	6
Thr	Gly	Glu	Lys	Pro	Tyr	Lys	Cys	Asp	G] y	Cys	Asp	Lys	Ala	Phe	Ser

				420					425					430		
	Ala	Lys	Ser	Gly	Leu	Arg	Ile	His	Gln	Arg	Thr	His	Thr	Gly	Glu	Lys
			435					440					445			
	Pro	Phe	Glu	Cys	His	Glu	Cys	Gly	Lys	Ser	Phe	Asn	Tyr	Lys	Ser	Ile
(		450					455					460				
	Leu	Ile	Val	His	Gln	Arg	Thr	His	Thr	Gly	Glu	Lys	Pro	Phe	G1u	Cys
	465					470					475					480
	Asn	Glu	Cys	Gly	Lys	Ser	Phe	Ser	His	Met	Ser	Gly	Leu	Arg	Asn	His
					485					490					495	
	Arg	Arg	Thr	His	Thr	Gly	Glu	Arg	Pro	Tyr	Lys	Cys	Asp	Glu	Cys	Gly
				500					505					510		
	Lys	Ala	Phe	Lys	Leu	Lys	Ser	Gly	Leu	Arg	Lys	His	His	Arg	Thr	His
			515				,	520					525			
	Thr	Gly	Glu	Lys	Pro	Tyr	Lys	Cys	Asn	Gln	Cys	Gly	Lys	Ala	Phe	Gly
		530					535					540				
	Gln	Lys	Ser	Gln	Leu	Arg	Gly	His	His	Arg	Ile	His	Thr	Gly	Glu	Lys
	545					550					555					560
	Pro	Tyr	Lys	Cys	Asn	His	Cys	Gly	Glu	Ala	Phe	Ser	Gln	Lys	Ser	Asn
					565					570					575	
	Leu	Arg	Val		His	Arg	Thr	His		Gly	Glu	Lys	Pro	Tyr	Gln	Cys
				580					585		_			590		
	Glu	Glu		Gly	Lys	Thr	Phe		Gln	Lys	Ser	Asn		Arg	Gly	His
			595					600	_				605	0.1		
	Gln		Thr	His	Thr	Gly		Lys	Pro	Tyr	Glu		Asn	Glu	Cys	G1 y
		610	D.	0	0.1	,	615	., .	,		,	620	0.1		T)	
		Ala	Phe	Ser	Glu			Val	Leu	Arg		HIS	GIn	Arg	Ihr	
	625	61	C1	,	D.	630 T		C .	Δ	C1	635	C1	C1	A 7 _	DI	640
	Inr	ыу	GIU	Lys		lyr	Asn	Cys	Asn		cys	ыу	GIU	Ala		ser
	C1	1	C	Α	645	Λ	V = 1	11: -	C1	650	ТЪ	III a	Than	C1	655	1
	GIN	Lys	ser		Leu	Arg	vai	HIS	665	Arg	Inr	HIS	1111	Gly	GIU	Lys
	Dage	Т	Luc	660 Cwa	Aan	Luc	Cuo	Cl <sub>v</sub>		The	Dho	Con	Cln	670	Sor	Son
	rr0	ıyr		Cys	nsp	Lys	Cys		arg	ш	гие	ser	685	Lys	ser	Sel
	Lavi	Λ ~ ~	675	и: ~	C1 <sub>5</sub>	Lve	<b>A1</b> ~	680	Dno	C1	Acr		000			
	Leu	Arg 690	oru	His	GIII	LyS	695	1115	110	GIY	nsp					
		000					000									

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<211> 319
<212> PRT
<213> Homo sapiens
<400> 547
Met Glu Tyr Pro Ala Pro Ala Thr Val Gln Ala Ala Asp Gly Gly Ala
                  5
 1
                                     10
                                                          15
Ala Gly Pro Tyr Ser Ser Glu Leu Leu Glu Gly Gln Glu Pro Asp
             20
                                 25
Gly Val Arg Phe Asp Arg Glu Arg Ala Arg Arg Leu Trp Glu Ala Val
                             40
                                                 45
Ser Gly Ala Gln Pro Val Gly Arg Glu Glu Ala Gln Phe Pro His
    50
                         55
Ser Arg Thr Val Ile Pro Ile Leu Val Leu Ser Glu Thr Tyr Ser Leu
                     70
                                         75 ·
Cys His Pro Val Glu His Met Ile Gln Lys Asn Gln Cys Leu Phe Thr
                                     90
                 85
                                                          95
Asn Thr Gln Cys Lys Val Cys Cys Ala Leu Leu Ile Ser Glu Ser Gln
            100
                                105
Lys Leu Ala His Tyr Gln Ser Lys Lys His Ala Asn Lys Val Lys Arg
                            120
                                                125
Tyr Leu Ala Ile His Gly Met Glu Thr Leu Lys Gly Glu Thr Lys Lys
    130
                        135
Leu Asp Ser Asp Gln Lys Ser Ser Arg Ser Lys Asp Lys Asn Gln Cys
                    150
                                         155
Cys Pro Ile Cys Asn Met Thr Phe Ser Ser Pro Val Val Ala Gln Ser
                                    170
                165
                                                         175
His Tyr Leu Gly Lys Thr His Ala Lys Asn Leu Lys Leu Lys Gln Gln
            180
                                185
                                                     190
Ser Thr Lys Val Glu Ala Leu His Gln Asn Arg Glu Met Ile Asp Pro
                            200
Asp Lys Phe Cys Ser Leu Cys His Ala Thr Phe Asn Asp Pro Val Met
    210
                        215
                                             220
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Ala Gln Gln His Tyr Val Gly Lys Lys His Arg Lys Gln Glu Thr Lys

<210> 4924

Leu Lys Leu Met Ala Arg Tyr Gly Arg Leu Ala Asp Pro Ala Val Thr Asp Phe Pro Ala Gly Lys Gly Tyr Pro Cys Lys Thr Cys Lys Ile Val Leu Asn Ser Ile Glu Gln Tyr Gln Ala His Val Ser Gly Phe Lys His Lys Asn Gln Ser Pro Lys Thr Val Ala Ser Ser Leu Gly Gln Ile Pro Met Gln Arg Gln Pro Ile Gln Lys Asp Ser Thr Thr Leu Glu Asp 

<210> 4925

<211> 458

<212> PRT

<213> Homo sapiens

<400> 548

Met Glu Ser Asn Phe Asn Thr Glu Ser Ser Ser Thr Phe Thr Leu Gln Ser Ser Ser Glu Thr Leu Phe Ser Ile Gln Leu Leu Asp Phe Lys Thr Ser Leu Leu Glu Ala Leu Glu Glu Leu Arg Met Arg Arg Glu Ala Glu lle His Tyr Glu Glu Gln lle Gly Lys lle lle Val Glu Thr Gln Glu Leu Lys Trp Gln Lys Glu Thr Leu Gln Asn Gln Lys Glu Thr Leu Ala Glu Gln His Lys Glu Ala Met Ala Val Phe Lys Lys Gln Leu Gln Met Lys Met Cys Ala Leu Glu Glu Glu Lys Gly Lys Tyr Gln Leu Ala Thr 

Glu lle Lys Glu Lys Glu lle Glu Gly Leu Lys Glu Thr Leu Lys Ala 115 120 125

Leu Gln Val Ser Lys Tyr Ser Leu Gln Lys Lys Val Ser Glu Met Glu

	130					135					140				
Gln	Lys	Val	Gln	Leu	His	Leu	Leu	Ala	Lys	Glu	Asp	Tyr	His	Lys	Gln
145					150					155					160
Leu	Ser	Glu	11e	Glu	Lys	Tyr	Tyr	Ala	Thr	Пе	Thr	Gly	Gln	Phe	Gly
				165					170					175	
Leu	Val	Lys	Glu	Asn	His	Glu	Lys	Leu	Glu	Gln	Asn	Val	Arg	Glu	Ala
			180					185					190		
He	Gln	Ser	Asn	Lys	Arg	Leu	Ser	Ala	Leu	Asn	Lys	Lys	Gln	Glu	Ala
		195					200					205			
Glu	lle	Cys	Ser	Leu	Lys	Lys	Glu	Leu	Lys	Lys	Ala	Ala	Ser	Asp	Leu
	210					215					220				
He	Lys	Ser	Lys	Val	Thr	Cys	Gln	Tyr	Lys	Met	Gly	Glu	Glu	Asn	He
225					230					235					240
Asn	Leu	Thr	He	Lys	Glu	Gln	Lys	Phe	Gln	Glu	Leu	Gln	Glu	Arg	Leu
				245					250					255	
Asn	Met	Glu	Leu	Glu	Leu	Asn	Glu	Lys	He	Asn	Glu	Glu		Thr	His
			260					265					270		
He	Gln		Glu	Lys	Gln	Asp		Ile	Ile	Ser	Phe		His	Met	Gln
		275					280	_				285			
Gln		Leu	Arg	Gln	Gln	Ile	Gln	Ala	Asn	Thr		Met	Glu	Ala	Glu
,	290				0.1	295		0.1	mı.		300				<b>.</b>
	Lys	Val	Leu	Lys		Asn	Asn	GIn	Thr		Glu	Arg	Asp	Asn	
305	6.1		C1	,	310	,	6.1		61	315	,	101			320
Leu	Gin	Arg	61u		Val	Lys	61u	Asn		Glu	Lys	Phe	Leu		Leu
C15	A an	Cl.:	u; a	325	1	<b>11</b> 0	Lan	C1	330	Т	1	Λ	11.5	335	C1
GIII	ASII	GIU	340	Giu	Lys	Ala	Leu		1111	11 þ	Lys	AIg	350	на	Glu
Glu	Lou	Acn		Glu	Ho	Asn	Lvc	345	lve	Acn	Glu	Lou		Sor	lou
Olu	Leu	355	Gry	Olu	116	лы	360	116	Lys	лэн	Olu	365	261	361	Leu
Lvs	Glu		His	ماآ	Glu	Leu		Glu	His	Tyr	Asn		Leu	Cvs	Asn
د، وحد	370		11.15	110	O1G	375	0111	Olu	111.5	1,1	380	Lys	Leu	0,5	11.511
Gln		Thr	Phe	Glu	Glu	Asp	Lvs	Lvs	Phe	Gln		Val	Pro	Glu	Val
385	2,0			0.14	390	р	2,0	2,0		395				010	400
	Asn	Glu	Asn	Ser		Met	Ser	Thr	Glu		Ser	Glu	Asn	Thr	
				405					410	•				415	
He	Gln	Lvs	Tvr		Thr	Glu	Gln	Glu		Arg	Glu	Glu	Asn		Glu

Asn Phe Cys Ser Asp Thr Glu Tyr Arg Glu Lys Glu Glu Lys Lys Arg Arg Leu Ile Tyr Arg Gly Asn Asn Tyr Arg <210> 4926 <211> 814 <212> PRT <213> Homo sapiens <400> 549 Met Val Lys Gln Thr 11e Gln 11e Phe Ala Arg Val Lys Pro Pro Val Arg Lys His Gln Gln Gly Ile Tyr Ser Ile Asp Glu Asp Glu Lys Leu Ile Pro Ser Leu Glu Ile Ile Leu Pro Arg Asp Leu Ala Asp Gly Phe Val Asn Asn Lys Arg Glu Ser Tyr Lys Phe Lys Phe Gln Arg Ile Phe Asp Gln Asp Ala Asn Gln Glu Thr Val Phe Glu Asn Ile Ala Lys Pro Val Ala Gly Ser Val Leu Ala Gly Tyr Asn Gly Thr lle Phe Ala Tyr Gly Gln Thr Gly Ser Gly Lys Thr Phe Thr Ile Thr Gly Gly Ala Glu Arg Tyr Ser Asp Arg Gly Ile Ile Pro Arg Thr Leu Ser Tyr Ile Phe Glu Gln Leu Gln Lys Asp Ser Ser Lys Ile Tyr Thr Thr His Ile Ser Tyr Leu Glu lle Tyr Asn Glu Cys Gly Tyr Asp Leu Leu Asp Pro Arg His Glu Ala Ser Ser Leu Glu Asp Leu Pro Lys Val Thr Ile Leu Glu 

Asp Pro Asp Gln Asn Ile His Leu Lys Asn Leu Thr Leu His Gln Ala

			180					185					190		
Thr	Thr	Glu	Glu	Glu	Ala	Leu	Asn	Leu	Leu	Phe	Leu	Gly	Asp	Thr	Asn
		195					200					205			
Arg	Met	He	Ala	Glu	Thr	Pro	Met	Asn	Gln	Ala	Ser	Thr	Arg	Ser	His
	210					215					220				
Cys	Пe	Phe	Thr	He	His	Leu	Ser	Ser	Lys	Glu	Pro	Gly	Ser	Ala	Thr
225					230					235					240
Val	Arg	His	Ala	Lys	Leu	His	Leu	Val	Asp	Leu	Ala	Gly	Ser	Glu	Arg
				245					250					255	
Val	Ala	Lys	Thr	Gly	Val	G1y	Gly	His	Leu	Leu	Thr	Glu	Ala	Lys	Tyr
			260					265					270		
He	Asn	Leu	Ser	Leu	His	Tyr	Leu	Glu	Gln	Val	He	lle	Ala	Leu	Ser
		275					280					285			
Glu		His	Arg	Ser	His	Пе	Pro	Tyr	Arg	Asn	Ser	Met	Met	Thr	Ser
	290					295					300				
	Leu	Arg	Asp	Ser		Gly	Gly	Asn	Cys		Thr	Thr	Met	He	
305					310					315					320
Thr	Leu	Ser	Leu		Lys	Arg	Asn	Leu		Glu	Ser	He	Ser		Cys
				325				~ ~	330					335	
Arg	Phe	Ala		Arg	Val	Ala	Leu		Lys	Asn	Glu	Ala		Leu	Asn
61	61	7.1	340	D	•	,	V 3	345			,	0.1	350	61	
Glu	Glu		Asn	Pro	Arg	Leu	Val	He	Lys	Arg	Leu		Lys	61u	11e
C1	C1	355	1	Δ	61	1	360	14. a	V - 1	The	C1	365	C1	<b>A</b>	ть
GJn		Leu	Lys	Asp	61 <b>u</b>		Ala	Met	vai	ınr		6111	GIN	Arg	ınr
C1	370	Lau	Tha	C1	110	375	Lau	Lau	C1.5	Lau	380	1	Lou	11.	The
385	ATA	Leu	1111	GIU	390		Leu	Leu	GIH	395		LyS	Leu	116	
	Pho	Lou	Glu	Acn			Ser	Asn	Sor			Glu	Val	Glv	400
361	THE	Leu	Olu	405	OIII	лэр	261	пор	410	мg	Leu	Olu	141	415	пта
Asn	Met	Arg	lve		Hic	Hie	Cys	Phe		His	Leu	Lve	lve		Leu
изр	,1100	ше	420	761	1113	1113	Oy 3	425	1113	111.3	1,00	Lys	430	Leu	Lea
Asn	Asn	Lvs		He	Leu	Glu	Asn		Thr	Val	Ser	Ser		Ser	Lvs
		435	٠- ر		200	JJu	440					445		~~.	2,5
Asp	Gln		Cvs	G1n	Glu	Pro	Leu	Lvs	Glu	Glu	Glu		Arg	Lvs	Leu
	450	- 1-	, ,			455					460	- 3 -		, ,	
Arg		11e	Leu	Lvs	Gln		Asp	Asn	Glu	He		He	Leu	Val	Asn

465					470					475					480
Met	Leu	Lys	Lys	Glu	Lys	Lys	Lys	Ala	Gln	Glu	Ala	Leu	His	Leu	Ala
				485					490					495	
Gly	Met	Asp	Arg	Arg	Glu	Phe	Arg	Gln	Ser	Gln	Ser	Pro	Pro	Phe	Arg
			500					505					510		
Leu	Gly	Asn	Pro	Glu	G1u	G1y	Gln	Arg	Met	Arg	Leu	Ser	Ser	Ala	Pro
		515					520					525			
Ser	Gln	Ala	Gln	Asp	Phe	Ser	Ile	Leu	Gly	Lys	Arg	Ser	Ser	Leu	Leu
	530					535					540				
His	Lys	Lys	Ile	G1 y	Met	Lys	Glu	Glu	Met	Ser	Leu	G1 y	Cys	G1n	Glu
545					550					555					560
Ala	Phe	Glu	He	Phe	Lys	Arg	Asp	His	Ala	Asp	Ser	Val	Thr	He	Asp
				565					570					575	
Asp	Asn	Lys		He	Leu	Lys	Gln	Arg	Phe	Ser	Glu	Ala		Ala	Leu
			580					585					590		
Gly	Glu		He	Asn	Glu	Ala	_	Ser	Lys	He	Gly		Leu	Lys	Glu
		595					600					605			
Glu		Thr	Gln	Arg	His		GIn	Gln	Val	Ala		Gly	He	Ser	Glu
	610			Б		615	<b>D</b>	_	0.1	0.1	620	0.1	,		
	Met	Ala	Val	Pro		Met	Pro	Asp	GIn		Glu	Glu	Lys	Leu	
625	61	,	61	61	630				т	635	TU	14 .	DI	TI	640
Ser	GIn	Leu	Glu		Glu	Lys	Arg	Arg		Lys	inr	Met	Phe		Arg
1		A 1 -	1	645	W. 1	C1	11.	C1	650	1	C1	1	1	655 M-4	Λ
Leu	Lys	Ala	660	Lys	vai	GIU	116	Glu 665	mis	Leu	GIN	Leu	670	are r	ASP
Luc	A10	Luc		Lve	Lou	Cln.	Lvc	Glu	Dho	Clu	Vol	Trn		Ala	Clu
LYS	мта	675	vai	Lys	Leu	0111		oru			vai	685		MIA	Ulu
Glu	Ala	0.0	Asn	Len	Gln	Val		Ser			Val			Len	Asn
Olu	690	1113	изп	Leu	0111	695	ASII	261	110	Ma	700	поп	501	LCu	пор
His		lvs	Pro	Phe	Len		Thr	Ser	Asn	Phe		His	Glu	Arø	Ser
705		13.7 (3			710				пор	715	· · · ·		0.0	0	720
	Leu	Leu	Ser	Asn		Ser	Ser	Gly	G1 v		Glu	Val	Gln	Asp	
				725					730					735	
G1 y	Thr	Glv	Arg		Asp	Val	Cys	Asp		Asn	Ala	Arg	Lys		Leu
•		•	740		•		•	745					750		
Pro	Ser	Pro		Pro	Ser	Pro	His	Ser	Gln	Lvs	Gln	Ser		Thr	Ser

Thr Pro Leu Gly Asp Ser Ile Pro Lys Arg Pro Val Ser Ser Ile Pro Leu Thr Gly Asp Ser Gln Thr Asp Ser Asp Ile Ile Ala Phe Ile Lys Ala Arg Gln Ser lle Leu Gln Lys Gln Cys Leu Gly Ser Asn <210> 4927 <211> 503 <212> PRT <213> Homo sapiens <400> 550 Met Gly Ala Leu Thr Phe Arg Asp Val Ala Ile Glu Phe Ser Leu Glu Glu Trp Gln Cys Leu Asp Thr Glu Gln Gln Asn Leu Tyr Arg Asn Val Met Leu Asp Asn Tyr Arg Asn Leu Val Phe Leu Gly Ile Ala Val Ser 

Lys Pro Asp Leu Ile Thr Cys Leu Glu Glu Glu Lys Glu Pro Trp Asn Leu Lys Thr His Asp Met Val Ala Lys Pro Pro Val Ile Cys Ser His Ile Ala Gln Asp Leu Trp Pro Glu Gln Gly Ile Lys Asp Tyr Phe Gln Glu Val Ile Leu Arg Gln Tyr Lys Lys Cys Arg His Glu Asn Leu Leu Leu Arg Lys Gly Cys Lys Asn Val Asp Glu Phe Lys Met His Lys Lys Gly Tyr Asn Arg His Asn Gln Cys Leu Thr Thr Ser His Ser Lys Ile Phe Gln Cys Asp Lys Tyr Val Lys Val Phe His Lys Phe Ser Asn Ser 

Asn Arg His Lys lle Arg His Thr Ser Lys Lys Pro Phe Lys Cys Lys

			165					170					175	
Cys	Gly	Lys	Leu	Phe	Cys	Пе	Leu	Ser	His	Leu	Ala	Gln	His	Lys
		180					185					190		
Пе	His	Thr	Gly	Glu	Lys	Ser	Tyr	Lys	Cys	Glu	Glu	Tyr	Gly	Lys
	195					200					205			
Phe	Asn	Glu	Ser	Ser	Asn	Cys	Thr	Thr	His	Lys	Arg	11e	Thr	Glu
210					215					220				
Lys	Pro	Tyr	Lys	Cys	Lys	Glu	Cys	Gly	Lys	Ala	Phe	Asn	Trp	Phe
				230					235					240
His	Phe	Thr	Thr	His	Lys	Arg	He	His	Thr	Gly	Glu	Lys	Pro	Tyr
			245					250					255	
Cys	Glu	Lys	Cys	Gly	Lys	Phe	Phe	Așn	Gln	Ser	Thr	Asn	Leu	Thr
		260					265					270		
His	Lys	Arg	He	His	Thr	Gly	Glu	Lys	Pro	Tyr	Lys	Cys	Glu	Glu
	275					280					285			
Gly	Lys	Ala	Phe	Asn	Gln	Ser	Ser	Asn	Leu	Thr	Glu	His	Lys	Lys
290					295					300				
His	Thr	Lys	Glu	Gln	Pro	Tyr	Lys	Cys	Glu	Lys	Cys	Gly	Lys	Ala
				310					315					320
Lys	Trp	Ser	Ser	Thr	Leu	Thr	Lys	His	Lys	Arg	He	His	Asn	Gly
			325					330					335	
Lys	Pro	Tyr	Lys	Cys	Glu	Glu	Cys	G1 y	Lys	Ala	Phe	Asn	Arg	Ser
		340					345					350		
Thr	Leu	Asn	Arg	His	Lys	He	Thr	His	Thr	Gly		Lys	Pro	Tyr
	355					360								
Tyr	Lys	Glu	Cys	Gły	Lys	Ala	Phe	Asn	Gln		Ser	Thr	Leu	Thr
370														
His	Lys	Пе	He		Thr	Val	GJu	Lys		Tyr	Lys	Cys	GIu	
			<b>5</b> 1							m	æ.			400
Gly	Lys	Ala		Ser	Arg	He	Ser		Leu	lhr	lhr	His		Arg
	æ.	0.1			В	T			C.1	6.1	6	6.1		
His	lhr		Glu	Lys	Pro	lyr		Cys	GJu	61u	Cys		Arg	ATa
٨	C1		С.	TI	1	TI.		11.:	1	Λ.	71.		т)	C1
Asn		ser	ser	ınr	Fen		ını	nis	Lys	arg		mis	ınr	оту
Luc		Tun	61	Cvc	Clu		Cvc	Clv	Lve	۸1 <sub>0</sub>		Acr	A 2	Sor
	Phe 210 Lys His Cys His Lys Lys Thr Tyr 370 His Gly His	Ile His 195 Phe Asn 210 Lys Pro His Phe Cys Glu His Lys 275 Gly Lys 290 His Thr Lys Trp Lys Pro Thr Leu 355 Tyr Lys 370 His Lys Gly Lys 370 His Lys	180   11e   His   Thr   195     Phe   Asn   Glu   210     Lys   Pro   Tyr   260     His   Lys   Arg   275     Gly   Lys   Ala   290     His   Thr   Lys     Lys   Pro   Tyr   340     Thr   Leu   Asn   355     Tyr   Lys   Glu   370     His   Lys   Ile     Gly   Lys   Ala     His   Thr   Gly   420     Asn   Gln   Ser   435	Cys       Gly       Lys       Leu         11e       His       Thr       Gly         195       -       -         Phe       Asn       Glu       Ser         210       -       Lys       Lys         Lys       Pro       Thr       Thr         Cys       260       -       -         Gly       Lys       Arg       11e         290       -       -       -         His       Thr       Lys       Glu         Lys       Trp       Ser       325         Lys       Pro       Tyr       Lys         Jhr       Lys       Glu       Cys         335       -       -         Tyr       Lys       Glu       Cys         370       -       -       -         His       Lys       Ala       Phe         405       -       -       -         His       Lys       Ala       Phe         405       -       -       -         His       Thr       Gly       Gly       -         405       -       -       -	Cys       Gly       Lys       Leu       Phe         11e       His       Thr       Gly       Glu         195       -       Ser       Ser         210       -       Lys       Cys         Lys       Pro       Tyr       Lys       Cys         His       Phe       Thr       His       Arg       His       Arg         Gly       Lys       Arg       His       Asn         290       -       310       Arg       Arg         His       Thr       Lys       Glu       Gln         Lys       Trp       Ser       Thr       310         Lys       Trp       Ser       Ser       Thr         325       -       -       -         Lys       Pro       Tyr       Lys       Cys         340       -       -       -         Tyr       Lys       Glu       Cys       Gly         370       -       -       -         His       Lys       Ala       Phe       Ser         Ala       Phe       Ser       -         His       Tyr       Ala       Phe	Cys       Leu       Phe       Cys         180       180       180       195         111e       His       Thr       Gly       Glu       Lys         195       195       215       Asn       215         Lys       Fro       Tyr       Lys       Cys       Lys         Lys       Phe       Tyr       Lys       Cys       Lys         Cys       Glu       Lys       Cys       Gly       Lys         Cys       Glu       Lys       Cys       Gly       Lys         Cys       Glu       Lys       Gly       Lys       Gly       Lys         Gly       Lys       Ala       Phe       Asn       Glu       Pro       295         His       Thr       Lys       Glu       Glu       Pro       295       Glu	Cys       Lys       Leu       Phe       Cys       11e         11e       130	Cys       Gly       Lys       Leu       Phe       Cys       11e       Leu         11e       His       Thr       Gly       Glu       Lys       Ser       Tyr         11e       His       Thr       Gly       Glu       Lys       Ger       Tyr         11e       Asn       Glu       Ser       Ser       Asn       Cys       Thr         21o       Tyr       Lys       Cys       Lys       Glu       Cys         21o       Tyr       Lys       Cys       Lys       Glu       Cys         23o       Tyr       Lys       Gly       Lys       Arg       He         Cys       Glu       Lys       Gly       Lys       Arg       He         Cys       Glu       Lys       Gly       Lys       Gly       Gly       Gly       Gly       Gly       Gly       Gly       Gly       Gly       Lys       Ala       Phe       Gly       Lys       Gly       Lys       Ala       Phe       Gly       Lys	Cys       Gly       Leu       Phe       Cys       11e       Leu       Ser         11e       His       Thr       Gly       Glu       Lys       Equ       Tyr       Lys         11e       His       Thr       Gly       Glu       Lys       Equ       Tyr       Lys         11e       Asn       Glu       Cys       Lys       Glu       Cys       Gly         11e       Pro       Tyr       Lys       Cys       Lys       Glu       Cys       Gly         11e       Pro       Tyr       Lys       Cys       Lys       Glu       Cys       Gly         11e       Pro       Tyr       Lys       Gly       Lys       Lys       Pro       Pro       Asn         11e       Pro       Gly       Lys       Pro       Pro       Pro       Asn       A	Cys         Gly         Leu         Phe         Cys         11e         Leu         Ser         His           11e         His         Thr         Gly         Glu         Lys         Ser         Tyr         Lys         Cys           11e         His         Thr         Gly         Glu         Lys         Ser         Tyr         Lys         Cys           11e         His         Thr         Gly         Gly         Lys         Gys         Thr         His         His           210         Tyr         Lys         Cys         Lys         Gys         Gys	Cys       Gly       Lys       Leu       Phe       Cys       11e       Leu       Ser       His       Leu         11e       His       Thr       Gly       Glu       Lys       Ser       Tyr       Lys       Cys       Glu         11e       His       Thr       Gly       Gly       Lys       Cys       Tyr       Lys       Cys       Glu         11e       His       Thr       Gly       Lys       Lys       Cys       Lys       Thr       Thr       His       Lys       Lys       Ala         210       Tyr       Lys       Cys       Lys       Lys       Lys       Lys       Lys       Ala         210       Tyr       Lys       Lys       Lys       Lys       Lys       Lys       Ala         210       Tyr       Lys       Lys       Lys       Lys       Lys       Ala       Lys       Lys       Lys       Ala         210       Tyr       Lys       Cys       Gly       Lys       Lys       Hys       Gly       Lys       Iys       I	Cys         Gly         Lys         Leu         Phe         Cys         11e         Leu         Ser         His         Leu         Ala           11e         His         Thr         Gly         Glu         Lys         Ser         Tyr         Lys         Glu         Glu         Glu         Jyr         Lys         Jyr         Lys         Glu         Glu         Jyr         Lys         Jyr         Jyr         Jyr         Jyr         Lys         Lys         Hyr         Hyr         Lys         Arg         Jyr         Hyr         Lys         Arg         Jyr         Lys         Arg         Jyr         Lys         Arg         Jyr         Jyr         Arg         Jyr         Jyr	Cys         Gly         Lys         Leu         Phe         Cys         He         Leu         Ser         His         Leu         Ala         Gly         Gly         180         Lys         Ser         Tyr         Lys         Glu         Glu         Tyr         Lys         Glu         Glu         Tyr         Lys         Glu         Glu         Tyr         Lys         Glu         Lys         Tyr         Lys         Ile         Ala         Pyr         Pyr         Ala         Pyr         Ala         Pyr         Ala         Pyr         Ala         Ala	Cys         Gly         Lys         Leu         Phe         Cys         Leu         Ser         His         Leu         Ala         His         His

Ser Thr Leu Thr Thr His Lys Ile Ile His Ser Gly Glu Lys Ile Tyr Lys Cys Lys Glu Cys Gly Lys Ala Phe Arg Arg Phe Ser His Leu Thr Arg His Lys Thr 11e His Thr <210> 4928 <211> 388 <212> PRT <213> Homo sapiens <400> 551 Met Leu Leu Lys Glu Lys Glu Asp Ser Leu Met Thr Cys Gln Gln Ile Tyr Lys Ala Leu Gln Glu Glu Leu Thr Val Lys Glu Lys Gln Glu Glu Asp lle Lys Arg Arg Ile Asn Leu Ala Glu Asn Glu Leu Glu Ile Thr Lys Thr Leu Leu Asn Gln Thr Arg Glu Glu Val Leu Thr Leu Lys Asn Glu Arg Glu Leu Met Leu Ile Ser His Gln Lys Ser Ile Glu Gln Leu Gln Glu Thr Leu Arg Gln Lys Leu Leu Ser Asp Asp Asn Trp Lys Glu Lys 11e Glu Ala Glu Leu Ala Lys Glu Arg Ala Gln His Leu Val Glu Phe Glu Glu Gln Ala Leu Leu Phe Lys Glu Glu Thr Lys Leu Gln Leu Asp Ile Glu Lys Glu Lys His Gln Asp Val Ile Gln Lys Tyr Lys Lys Glu Gln Glu Glu Leu Gln Met Lys lle Ser Asp Leu lle Thr Gly Ala 

Thr Arg Asp Leu Arg Gln Glu Val Thr Thr Leu Lys Glu Lys Leu His

				165					170					175	
Lys	Ser	His	Thr	Arg	Tyr	Thr	Glu	Glu	Ser	Asn	Ser	Lys	Glu	Lys	Glu
			180					185					190		
Пe	Glu	Asn	Leu	Lys	Asn	Leu	Val	Ala	G]u	Phe	Glu	Ser	Arg	Leu	Lys
		195					200					205			
Lys	Glu	He	Asp	Ser	Asn	Asp	Ser	Val	Ser	Glu	Asn	Leu	Arg	Lys	Glu
	210					215					220				
Met	Glu	Gln	Lys	Ser	Asp	Glu	Leu	Lys	Arg	Val	Met	Leu	Ala	Gln	Thr
225					230					235					240
Gln	Leu	lle	Glu	Gln	Phe	Asn	Gln	Ser	Gln	Glu	Glu	Asn	Thr	Phe	Leu
				245					250					255	
Gln	Glu	Thr	Val	Arg	Arg	Glu	Cys	Glu	Glu	Arg	Phe	Glu	Leu	Thr	Glu
			260					265					270		
Ala	Leu	Ser	Gln	Ala	Arg	Glu	Gln	Leu	Leu	Glu	Leu	Ser	Lys	Leu	Arg
		275					280					285			
Gly	Ser	Leu	Pro	Phe	Ser	Pro	Cys	Ser	Leu	Ser	Lys	Gly	Ser	Leu	Thr
	290					295					300				
Ser	Pro	Ala	Ala	Ala	Val	Ser	Asn	His	Gly	Glu	Arg	Ser	Leu	Ala	Arg
305					310					315					320
Leu	Asn	Ser	Glu	Lys	Gly	Ile	Gln	lle	Pro	Asn	Leu	Arg	Gly	Val	Ser
				325					330					335	
Lys	Pro	Thr	Thr	Phe	Pro	Thr	Ser	Asp	Lys	Pro	Lys	Arg	Va]	Arg	Ser
			340					345					350		
Gly	Va]	Pro	lle	Leu	Pro	Gln	Pro	His	Pro	Pro	Arg	Gly	Gly	Ala	Ser
		355					360					365			
Ser	Ala	Asn	Glu	Thr	Arg	Gln	Arg	Leu	Ala	Ala	lle	Leu	Arg	Arg	Arg
	370					375				•	380				
Arg	Ser	Gln	Gln												
385															

<210> 4929

〈211〉 165

<212> PRT

<213> Homo sapiens

<400> 552 Met Asp Gly Pro Ala Thr Pro Val Ser Thr Asp Ser Asn Pro Pro Thr Gln Gln Glu Asp Arg Ser Ala Cys Lys Cys Thr His Leu Glu Lys Arg Leu Phe Pro Leu Leu Leu Val Ala Gln Leu Leu Leu Ser Pro Pro Gly Ala Ala Val Lys Cys Gln Leu Asp Pro Ala Lys Trp Gln Asp Pro Gln His Ser Ser Ile Cys Ser Val Leu His Leu Arg His Trp Lys Gly Cys Glu Pro Asp Ile Gly Ser Gln Ser Thr Cys Phe Pro Glu Pro Glu Ser Cys Leu Pro Val Ala Ala Asp Thr Asp Ser Asn Val Thr Pro Ala Thr Gln Gln Gln Arg Cys Cys Thr Leu Ala Cys Asn Leu Gly Thr Gly Pro Leu His Leu Leu Leu Ser Leu Leu Met Gln Leu Gly Ala Arg Ala Cys Ala Thr Gly Ser Asp Leu Thr Ser Thr Ser Ser Arg Ala Thr Val Asn Leu His Val Pro <210> 4930 <211> 832 <212> PRT <213> Homo sapiens <400> 553 Met Ala Gly Leu Arg Tyr Ser Val Lys Val Tyr Val Leu Asn Glu Asp Glu Glu Trp Asn Asn Leu Gly Thr Gly Gln Val Ser Ser Thr Tyr Asp

Glu	Gln	Phe	Gln	Gly	Met	Ser	Leu	Leu	Val	Arg	Ser	Asp	Ser	Asp	Gly
		35					40					45			
Ser	Val	He	Leu	Arg	Ser	Gln	Ile	Pro	Pro	Asp	Arg	Pro	Tyr	Gly	Lys
	50					55					60				
Tyr	Gln	Glu	Thr	Leu	Ile	Val	Trp	Tyr	Glu	Ala	Glu	Asn	Gln	Gly	Leu
65					70					75					80
Val	Leu	Lys	Phe	Gln	Asp	Pro	Ala	Gly	Cys	Gln	Asp	He	Trp	Lys	Glu
				85					90					95	
Ile	Cys	Gln	Ala	Gln	Gly	Lys	Asp	Pro	Ser	Ile	Gln	Thr	Thr	Val	Asn
			100					105					110		
Ile	Ser	Asp	Glu	Pro	Glu	Glu	Asp	Phe	Asn	Glu	Met	Ser	Val	He	Ser
		115					120					125			
Asn		Val	Val	Leu	Pro		Cys	G] u	Leu	Asn	Thr	Leu	Asp	G1n	He
	130					135					140				
	Asp	He	Val	Thr	Ser	Val	Phe	Ser	Ser		Val	Thr	Asp	Arg	
145			0.1		150					155		_			160
Arg	Leu	Ala	Glu		Leu	Lys	Asn	Glu		Tyr	He	Pro	Lys		Leu
61		DI		165	0	0.1			170		m	0.1	0.1	175	
GIn	Leu	Phe		Ihr	Cys	Glu	Asn		Glu	Asn	lhr	Glu		Leu	His
112 -	I	Т	180	т1.	т1.	1	C1	185	1	DI.			190	4.1	C
HIS	Leu		GIU	116	He	Lys		11e	Leu	Pne	Leu		GIU	Ala	Cys
Lou	Dho	195	11.	Mat	Dha	C	200	C1	Cua	11.	Max	205	V = 1	W - 1	C1
ren	210	GIU	116	wet	Phe	215	ASP	GIU	Cys	116		ASP	vai	vai	Gry
Cvc		Glu	Tyr	Acn	Pro		Lou	Acn	Cln	Dro	220	Ana	Ui.	Ara	Aan
225	Leu	Olu	1 9 1	nsp	230	пта	Leu	лър	OIII	235	Lys	лıg	1112	nı g	240
	Leu	Thr	Asn	Asn	Ala	Ivs	Phe	lvs	Glu		He	Pro	Πle	Thr	
1110	Leu		11011	245	,,,,	LyS	1110	2,5	250	, 41	110	110	110	255	11311
Ser	Glu	Leu	Arg		Lys	He	His	G] n		Tvr	Arg	Leu	GIn		He
			260		~,~			265					270	1,1	1.0
Tyr	Asp	He		Leu	Pro	Val	Pro		Пe	Phe	Glu	Asp		Phe	Leu
•	•	275					280					285			
Ser	Thr	Leu	Thr	Thr	Phe	He	Phe	Ser	Asn	Lys	Ala	Glu	He	Val	Ser
	290					295					300				
Met	Leu	Gln	Lys	Asp	His	Lys	Phe	Leu	Tyr	Glu	Val	Phe	Ala	Gln	Leu
305					310					315					320

Lys	Asp	Glu	Thr	Thr	His	Asp	Asp	Arg	Arg	Cys	Glu	Leu	Leu	Phe	Phe
				325					330					335	
Phe	Lys	Glu	Leu	Cys	Ser	Phe	Ser	Gln	Ala	Leu	Gln	Pro	Gln	Ser	Lys
			340					345					350		
Asp	Ala	Leu	Phe	Glu	Thr	Leu	He	Gln	Leu	Gly	Val	Leu	Pro	Ala	Leu
		355					360					365			
Lys	Ile	Val	Met	Пe	Arg	Asp	Asp	Leu	Gln	Val	Arg	Ser	Ala	Ala	Ala
	370					375					380				
Val	Ile	Cys	Ala	Tyr	Leu	Val	Glu	Tyr	Ser	Pro	Ser	Arg	Ile	Arg	Glu
385					390					395					400
Phe	Ile	Ile	Ser	Glu	Ala	His	Val	Cys	Lys	Asp	He	Tyr	Leu	Phe	He
				405					410					415	
Asn	Val	lle	lle	Lys	Gln	Met	11e	Cys	Asp	Thr	Asp	Pro	Glu	Leu	Gly
			420					425					430		
Gly	Ala	Val	His	Leu	Met	Val	Val	Leu	His	Thr	Leu	Leu	Asp	Pro	Arg
		435					440					445			
Asn	Met	Leu	Thr	Thr	Pro	Glu	Lys	Ser	Glu	Arg	Ser	Glu	Phe	Leu	His
	450					455					460				
Phe	Phe	Tyr	Lys	His	Cys	Met	His	Lys	Phe	Thr	Ala	Pro	Leu	Leu	Ala
465					470					475					480
Ala	Thr	Ser	Glu	His	Asn	Cys	Glu	Glu	Asp	Asp	Ile	Ala	G1 y	Tyr	Asp
				485					490					495	
Lys	Ser	Lys	Asn	Cys	Pro	Asn	Asp	Asn	Gln	Thr	Ala	Gln	Leu	Leu	Ala
			500					505					510		
Leu	Ile	Leu	Glu	Leu	Leu	Thr	Phe	Cys	Пe	Gln	His	His	Thr	Phe	Tyr
		515					520					525			
He	Arg	Ser	Tyr	lle	Leu	Asn	Lys	Asp	Leu	Leu	Arg	Lys	Ala	Leu	Пе
	530					535					540				
Leu	Met	Asn	Ser	Lys	His	Thr	His	Leu	He	Leu	Cys	Va1	Leu	Arg	Phe
545					550					555					560
Met	Arg	Arg	Met	He	Cys	Leu	Asn	Asp	Glu	Ala	Tyr	Asn	Asn	Tyr	He
				565					570					575	
He	Lys	Gly	Asn	Leu	Phe	Glu	Pro	Val	Val	Asn	Ala	Leu	Leu	Asp	Asn
			580					585					590		
Gly	Thr	Arg	Tyr	Asn	Met	Leu	Asn	Ser	Ala	Ile	Leu	Glu	Leu	Phe	Glu
		595					600					605			

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Tyr Ile Arg Val Glu Asn lle Lys Pro Leu Val Ser His Ile Val Glu
                        615
                                            620
Lys Phe Tyr Asn Thr Leu Glu Ser Ile Glu Tyr Val Gln Thr Phe Lys
625
                    630
                                        635
                                                             640
Gly Leu Lys Ile Lys Tyr Glu Lys Glu Arg Asp Arg Gln Ser Gln Ile
                645
                                    650
Gln Lys Asn Leu His Ser Val Leu Gln Asn Ile Val Val Phe Arg Gly
                                665
Thr Ile Glu Glu Ile Gly Leu Glu Glu Glu Ile Cys Phe Met Glu Asp
        675
                            680
Ala Gly Glu Ala Val Met Pro Pro Leu Glu Asp Asp Asp Glu Phe Met
                        695
                                            700
Glu Thr Lys Arg Thr Gln Glu Gly Glu Ala Val Met Pro Pro Leu Glu
705
                    710
                                        715
                                                             720
Asp Asp Asp Lys Phe Thr Glu Thr Lys Arg Thr His Gln Glu Gly Glu
                                    730
                725
Ala Val Met Pro Pro Leu Glu Asp Asp Asp Glu Phe Met Glu Thr Lys
            740
                                745
Arg Asn Gln Glu His Glu Gly Lys Val Asp Ser Pro Lys Arg Thr Ser
        755
                            760
Ser Gly Asp Phe Lys Phe Ser Ser Ser Tyr Ser Ala Cys Ala Ala Ile
                        775
                                            780
Gly Thr Gly Ser Pro Ser Gly Ser Ser Val Val Arg Leu Val Asp His
                    790
                                        795
785
                                                             800
Pro Asp Asp Glu Glu Glu Lys Glu Glu Asp Glu Glu Glu Lys Glu Glu
                805
                                    810
Asp Lys Glu Asp Glu Thr Ser Pro Lys Lys Lys Pro His Leu Ser Ser
            820
                                825
                                                     830
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<210> 4931

<211> 250

<212> PRT

<213> Homo sapiens

<400> 554

Met	Phe	His	Gly	Thr	Val	Thr	Glu	Glu	Leu	Thr	Ser	His	Glu	Glu	Trp
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Ser	His	Tyr	Asn	Glu	Asn	He	Arg	Glu	Gly	Gln	Lys	Asp	Phe	Val	Phe
			20					25					30		
Val	Lys	Phe	Asn	Gly	Leu	His	Leu	Lys	Ser	Met	Glu	Asn	Leu	Gln	Ser
		35					40					45	2		
Cys	He	Ser	Leu	Arg	Val	Cys	He	Phe	Ser	Asn	Asn	Phe	Ile	Thr	Asp
	50					55					60				
Ile	His	Pro	Leu	Gln	Ser	Cys	Ile	Lys	Leu	lle	Lys	Leu	Asp	Leu	His
65					70					75					80
Gly	Asn	Gln	Ile	Lys	Ser	Leu	Pro	Asn	Thr	Lys	Phe	Trp	Asn	Gly	Leu
				85					90					95	
Lys	Asn	Leu	Lys	Leu	Leu	Tyr	Leu	His	Asp	Asn	Gly	Phe	Ala	Lys	Leu
			100					105					110		
Lys	Asn	He	Cys	Val	Leu	Ser	Ala	Cys	Pro	Thr	Leu	He	Ala	Leu	Thr
		115					120					125			
Met	Phe	Asp	Cys	Pro	Val	Ser	Leu	Lys	Lys	Gly	Tyr	Arg	His	Val	Leu
	130					135					140				
Val	Asn	Ser	lle	Trp	Pro	Leu	Lys	Ala	Leu	Asp	His	His	Val	Ile	Ser
145					150					155					160
Asp	Glu	Glu	He	Ile	Gln	Asn	Trp	His	Leu	Pro	Glu	Arg	Phe	Lys	Ala
				165					170					175	
Cys	Asn	His	Arg	Leu	Phe	Phe	Asn	Phe	Cys	Pro	Ala	Leu	Arg	Lys	Gly
			180					185					190		
Thr	Thr	Tyr	Glu	Glu	Glu	lle	Asn	Asn	He	Lys	His	He	Thr	Ser	Lys
		195					200					205			
He	Asn	Λla	He	Leu	Ala	His	Asn	Ser	Pro	Val	Leu	He	Val	Gln	Arg
	210					215					220				
Trp	He	Arg	Gly	Phe	Leu	Val	Arg	Lys	Asn	Leu	Ser	Pro	Val	Phe	Phe
225					230					235					240
His	Lys	Lys	Lys	Thr	Ala	Gly	Lys	Asn	Tyr						
				245					250						

<210> 4932

<211> 788

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<213> Homo sapiens
<400> 555
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Tyr Ser Leu Phe His Lys Gly Asn Lys Ala Gly Val Gln Trp His Asp
                                 25
Leu Gly Ser Leu Gln Pro Leu Pro Pro Arg Phe Lys Arg Phe Ser Cys
                             40
                                                  45
Leu Ser Leu Gln Ser Ser Trp Asp Tyr Ser Leu Ser Lys Phe Asp Glu
                         55
                                              60
Arg Cys Cys Phe Leu Tyr Val His Asp Asn Ser Asp Asp Phe Gln 11e
65
                     70
                                          75
                                                              80
Tyr Phe Ser Thr Glu Glu Gln Cys Ser Arg Phe Phe Ser Leu Val Lys
                                     90
                 85
Glu Met Ile Thr Asn Thr Ala Gly Ser Thr Val Glu Leu Glu Gly Glu
                                105
Thr Asp Gly Asp Thr Leu Glu Tyr Glu Tyr Asp His Asp Ala Asn Gly
        115
Glu Arg Val Val Leu Gly Lys Gly Thr Tyr Gly Ile Val Tyr Ala Gly
                        135
Arg Asp Leu Ser Asn Gln Val Arg lle Ala Ile Lys Glu lle Pro Glu
                                         155
                                                             160
145
                    150
Arg Asp Ser Arg Tyr Ser Gln Pro Leu His Glu Glu lle Ala Leu His
                165
                                     170
Lys Tyr Leu Lys His Arg Asn Ile Val Gln Tyr Leu Gly Ser Val Ser
                                185
Glu Asn Gly Tyr lle Lys Ile Phe Met Glu Gln Val Pro Gly Gly Ser
        195
                                                 205
                            200
Leu Ser Ala Leu Leu Arg Ser Lys Trp Gly Pro Met Lys Glu Pro Thr
                        215
                                             220
lle Lys Phe Tyr Thr Lys Gln Ile Leu Glu Gly Leu Lys Tyr Leu His
                    230
                                         235
                                                             240
225
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Glu Asn Gln lle Val His Arg Asp lle Lys Gly Asp Asn Val Leu Val

<212> PRT

Asn	Thr	Tyr	Ser	Gly	Val	Val	Lys	He	Ser	Asp	Leu	Gly	Thr	Ser	Lys
			260					265					270		
Arg	Leu	Λla	Gly	Val	Asn	Pro	Cys	Thr	Glu	Thr	Phe	Thr	Gly	Thr	Leu
		275					280					285			
Gln	Tyr	Met	Ala	Pro	Glu	11e	He	Asp	Gln	Gly	Pro	Arg	G1 y	Tyr	Gly
	290					295					300				
Ala	Pro	Ala	Asp	He	Trp	Ser	Leu	Gly	Cys	Thr	lle	lle	Glu	Met	Ala
305					310					315					320
Thr	Ser	Lys	Pro	Pro	Phe	His	Glu	Leu	Gly	Glu	Pro	Gln	Ala	Ala	Met
				325					330					335	
Phe	Lys	Val	Gly	Met	Phe	Lys	He	His	Pro	Glu	Ile	Pro	Glu	Ala	Leu
			340					345					350		
Ser	Ala	Glu	Ala	Arg	Ala	Phe	lle	Leu	Ser	Cys	Phe	Glu	Pro	Asp	Pro
		355					360					365			
His	Lys	Arg	Ala	Thr	Thr	Ala	Glu	Leu	Leu	Arg	Glu	Gly	Phe	Leu	Arg
	370					375					380				
Gln	Val	Asn	Lys	Gly	Lys	Lys	Asn	Arg	Ile	Ala	Phe	Lys	Pro	Ser	Glu
385					390					395					400
Gly	Pro	Arg	Gly	Val	Val	Leu	Ala	Leu	Pro	Thr	Gln	Gly	Glu	Pro	Met
				405					410					415	
Ala	Thr	Ser	Ser	Ser	Glu	His	Gly	Ser	Val	Ser	Pro	Asp	Ser	Asp	Ala
			420					425					430		
Gln	Pro	Asp	Ala	Leu	Phe	Glu	Arg	Thr	Arg	Ala	Pro	Arg	His	His	Leu
		435					440					445			
Gly	His	Leu	Leu	Ser	Val	Pro	Asp	Glu	Ser	Ser	Ala	Leu	Glu	Asp	Arg
	450					455					460				
Gly	Leu	Ala	Ser	Ser		Glu	Asp	Arg	Asp		Gly	Leu	Phe	Leu	
465					470					475					480
Arg	Lys	Asp	Ser		Arg	Arg	Ala	He		Tyr	Lys	lle	Leu		Glu
				485					490					495	
Glu	Gln	Asn		Val	Ala	Ser	Asn		Gln	Glu	Cys	Val		Gln	Ser
			500					505					510		
Ser	Glu		Leu	His	Leu	Ser		Gly	His	He	Lys		He	Ile	Gly
		515					520					525			
He		Arg	Asp	Phe	He	Arg	Ser	Pro	Glu	His		Val	Met	Ala	Thr
	530					535					540				

Thr	lle	Ser	Lys	Leu	Lys	Val	Asp	Leu	Asp	Phe	Asp	Ser	Ser	Ser	Пе
545					550					555					560
Ser	Gln	Ile	His	Leu	Val	Leu	Phe	Gly	Phe	Gln	Asp	Ala	Val	Asn	Lys
				565					570					575	
He	Leu	Arg	Asn	His	Leu	Пе	Arg	Pro	His	Trp	Met	Phe	Ala	Met	Asp
			580					585					590		
Asn	He	He	Arg	Arg	Ala	Val	Gln	Ala	Ala	Val	Thr	11e	Leu	Ile	Pro
		595					600					605			
Glu	Leu	Arg	Ala	His	Phe	Glu	Pro	Thr	Cys	Glu	Thr	Glu	Gly	Val	Asp
	610					615					620				
Lys	Asp	Met	Asp	Glu	Ala	Glu	Glu	Gly	Tyr	Pro	Pro	Ala	Thr	Gly	Pro
625					630					635					640
Gly	Gln	Glu	Ala	Gln	Pro	His	Gln	Gln	His	Leu	Ser	Leu	Gln	Leu	Gly
				645					650					655	
Glu	Leu	Arg	Gln	Glu	Thr	Asn	Arg	Leu	Leu	Glu	His	Leu	Val	Glu	Lys
			660					665					670		
Glu	Arg	Glu	Tyr	Gln	Asn	Leu	Leu	Arg	Gln	Thr	Leu	Glu	Gln	Lys	Thr
		675					680					685			
Gln	Glu	Leu	Tyr	His	Leu	Gln	Leu	Lys	Leu	Lys	Ser	Asn	Cys	Ile	Thr
	690					695					700				
Glu	Asn	Pro	Ala	Gly	Pro	Tyr	Gly	Gln	Arg	Thr	Asp	Lys	Glu	Leu	He
705					710					715					720
Asp	Trp	Leu	Arg	Leu	Gln	Gly	Ala	Asp	Ala	Lys	Thr	Ile	Glu	Lys	He
				725					730					735	
Val	Glu	Glu	Gly	Tyr	Thr	Leu	Ser	Asp	Ile	Leu	Asn	Glu	lle	Thr	Lys
			740					745					750		
Glu	Asp	Leu	Arg	Tyr	Leu	Arg	Leu	Arg	Gly	Gly	Leu	Leu	Cys	Arg	Leu
		755					760					765			
Trp	Ser	Ala	Val	Ser	Gln	Tyr	Arg	Arg	Ala	Gln	Glu	Ala	Ser	Glu	Thr
	770					775					780				
Lys	Asp	Lys	Ala												
785															

<210> 4933

<211> 266

<212> PRT											
<213> Homo sapiens											
<400> 556											
Met Leu 11	e Asn Val	lle Ser	Gly Ser	Ser Tyr	Met Ile	e His Ser	Thr				
1	5			10		15					
Gln Leu II	e Glu Asn	Ala Glu	Leu Arg	Phe His	Thr Asp	Glu Gln	Leu				
	20		25			30					
Met Thr Le	u Phe Met	Gln Leu	Gln Thr	Ala Val	Arg Ser	Arg Met	His				
3	5		40		45	5					
Pro Phe Ty	r lle Thr	His Ile	Arg Ala	His Thr	Pro Leu	Pro Gly	Pro				
50		55			60						
Leu Thr Al	a Gly Asn	Gln Met	Ala Asp	Arg Leu	Val Ala	Thr Ala	lle				
65		70		75			80				
Ser Asn Al	a Arg His	Phe His	Asn Leu	Thr Arg	Val Asr	ı Ala Ser	G1y				
	85	ı		90		95					
Leu Lys Ar	g Arg Tyr	Ser Ser	Thr Arg	Lys Glu	Ala Lys	s Ala Ile	lle				
	100		105			110					
Gln Arg Cy	s Pro Thr	Cys Gln	Met Val	His Ser	Ser Ser	Phe Thr	Gly				
11	5		120		125	5					
Gly Val As	n Pro Arg	Arg Leu	Glu Pro	Asn Ser	Leu Tr	Glu Met	Asp				
130		135			140						
Val Thr Hi	s Val Pro	Ser Phe	Gly Arg	Leu Ala	Tyr Val	His Ala	Cys				
145		150		155			160				
Val Asp Th	r Phe Ser	Leu Trp	Ala Ala	Cys Gln	Ser Gly	Glu Ser	Ser				
	165			170		175					
Ala Tyr Va	l Lys Arg	His Leu	Leu Gln	Cys Phe	Val Val	lle Gly	lle				
	180		185			190					
Leu Ala Se	r Ile Lys	Thr Asp	Asn Ala	Pro Gly	Tyr Thi	Ser Gln	Ala				
19	5		200		208	5					
Leu Ala Th	r Phe Phe	Ser lle	Arg Asn	lle Lys	His 11e	e Thr Gly	Ile				
210		215			220						
Pro Tyr As	n Ser Gln	Gly Gln	Ala lle	Val Glu	Arg Met	Asn Leu	Ser				
225		230		235			240				

Leu Lys Gln Gln Leu Gln Lys Gln Lys Gly Glu Asn Arg Asp Tyr Gly

Thr Pro His Met Gln Leu Asn Arg 11e I1e
260 265

<210> 4934 <211> 279 <212> PRT <213> Homo sapiens <400> 557 Met Gly Thr Ser Cys Leu Pro Asp Thr Phe Thr Lys Leu Ile Asn Pro Gln Glu Asn Thr Cys Ser Leu Glu Glu Phe Val Leu Gln Leu Glu Leu Ser Gly Tyr Ser Pro Glu Asp Leu Thr Ala Ala Leu Glu Ile Leu Glu Ala Ile Ile Ala Thr Gly Cys Phe Gly Ile Asp Lys Glu Glu Leu Arg Arg Arg Phe Ser Ala Leu Glu Lys Ala Gly Gly Gly Arg Thr Arg Thr Phe Ala Asp Cys Ile Gln Ala Leu Leu Glu Gln His Gln Val Leu Glu Val Gly Gly Asn Thr Ala Arg Leu Val Ala Met Gly Ser Ala Trp Pro Trp Leu Leu His Ser Val Arg Leu Lys Asp Arg Glu Asp Ala Asp Ile Gln Arg Glu Asp Pro Gln Ala Arg Pro Leu Glu Gly Ser Ser Ser Glu Asp Ser Pro Pro Glu Gly Gln Ala Pro Pro Ser His Ser Pro Arg Gly Thr Lys Arg Arg Ala Ser Trp Ala Ser Glu Asn Gly Glu Thr Asp Ala Glu Gly Thr Gln Met Thr Pro Ala Lys Arg Pro Ala Leu Gln Asp Ser Asn Leu Ala Pro Ser Leu Gly Pro Gly Ala Glu Asp Gly Ala Glu Ala

Gln Ala Pro Ser Pro Pro Pro Ala Leu Glu Asp Thr Ala Ala Ala Gly 215 220 Ala Ala Gln Glu Asp Gln Glu Gly Val Gly Glu Phe Ser Ser Pro Gly 230 235 240 225 Gln Glu Gln Leu Ser Glv Gln Ala Gln Pro Pro Glu Gly Ser Glu Asp 250 245 Pro Arg Gly Thr Ala Arg Leu Val Pro His Pro Thr Ser Pro His Pro 260 270 265 Gly Phe Pro Ser Pro Pro Pro 275

<210> 4935

<211> 325

<212> PRT

<213> Homo sapiens

<400> 558

Met Pro Ser Arg 11e Leu Asp Lys Glu Leu Leu Ser Gly 11e Pro Asp 5 10 Thr Glu Arg Leu Ser Glu Val Val Asp Asn Arg Ala Pro Gln Arg Asp 20 25 Pro Thr His Arg Ala Pro Gln Arg Asp Pro Thr His Arg Ala Pro Gln 45 Arg Asp Pro Thr His Arg Ala Pro Gln Arg Asp Pro Thr His Arg Ala 55 Pro Gln Arg Asp Pro Thr His Arg Ala Pro Gln Arg Asp Pro Thr His 70 75 65 80 Arg Pro Pro Gln Arg Asp Pro Thr His Arg Ala Pro Gln Arg Asp Pro 85 90 Thr His Arg Ala Pro Gln Arg Asp Pro Thr His Arg Ala Pro Gln Arg 105 Gly Pro Arg His Arg Ala Pro Gln Arg Ser Pro Arg His Arg Ala Pro 115 125 Gln Arg Asp Pro Thr His Arg Ala Pro Gln Arg Gly Pro Arg His Arg

Ala	Pro	Gln	Arg	Asp	Pro	Thr	His	Arg	Ala	Pro	Gln	Arg	G1y	Pro	Arg
145					150					155					160
His	Arg	Ala	Pro	Gln	Arg	Gly	Pro	Thr	His	Arg	Ala	Pro	Gln	Arg	Gly
				165					170					175	
Pro	Arg	His	Arg	Ala	Pro	Gln	Arg	Gly	Pro	Arg	His	Arg	Ala	Pro	Gln
			180					185					190		
Arg	Gly	Pro	Thr	His	Arg	Ala	Pro	Gln	Arg	Asp	Pro	Gly	Trp	Arg	Ala
		195					200					205			
Pro	Gln	Arg	Gly	Pro	Thr	His	Arg	Ala	Pro	Gln	Arg	lle	Leu	Asp	Ala
	210					215					220				
Glu	Pro	Val	Ser	Gly	Phe	Leu	Asp	Ala	Glu	Ser	Leu	Ser	Gly	He	Leu
225					230					235					240
Val	Val	Glu	Arg	Leu	Ser	Gly	He	Leu	Asp	Ala	Glu	Arg	Leu	Ser	Gly
				245					250					255	
Ile	Leu	Asp	Thr	Glu	Arg	Leu	Ser	Leu	Val	Leu	His	Thr	Glu	Arg	Leu
			260					265					270		
Ser	Gly	Ile	Leu	Val	Gly	Glu	Arg	Leu	Ser	Gly	Val	Leu	His	Thr	Glu
		275					280					285			
Arg	Leu	Ser	Gly	He	Leu	Val	Gly	Glu	Arg	Leu	Ser	G1 y	He	Leu	Asp
	290					295					300				
Thr	Glu	Arg	Leu	Ser	Gly	He	Leu	Asp	Thr	Glu	Pro	Leu	Ser	Glu	Ser
305					310					315					320
Gln	lle	His	Ser	Ala											
				325											
<210	)> 49	936													
<21	1> 3'	78													
<212	2> PI	RT													
<213	3> He	omo s	sapio	ens											
<400	)> 59	59													

Met Met Leu Ser Arg Lys Leu Pro Val His Val Asp Asp Pro Leu Ser

Thr Thr Leu Phe Ser Ser Gln Leu Asn Arg Arg Ile Ser Asn Met Asp

			20					25					30		
Asp	Lys	Val	Tyr	Lys	Met	Ser	Arg	Ala	Leu	Ala	Glu	lle	Lys	Lys	Arg
		35					40					45			
Phe	Gln	Lys	Thr	Val	Thr	Gln	Phe	Пе	Asn	Ser	He	Leu	Leu	Ala	Ala
	50					55					60				
Gly	Leu	Phe	Thr	lle	Glu	Tyr	Pro	Thr	Lys	Lys	Glu	Glu	Glu	Glu	Phe
65					70					75					80
Val	Arg	Phe	Lys	Met	Arg	Ser	Arg	Thr	His	Pro	Glu	Arg	Leu	Pro	Lys
				85					90					95	
Leu	Ser	Leu	Tyr	Ser	Gly	Glu	Ser	Leu	Leu	Arg	Ser	Gln	Ser	Gly	His
			100					105					110		
Leu	Glu	Ser	Ser	He	Ala	Glu	Thr	Leu	Lys	Asp	Glu	Pro	Glu	Ser	Ala
		115					120					125			
Pro	Val	Ser	Pro	Val	Arg	Lys	Thr	Thr	Lys	He	His	Thr	Lys	Ala	Lys
	130					135					140				
Val	Thr	Ser	Arg	Gly	Lys	Ala	Arg	Glu	Gly	Arg	Ser	Pro	Thr	Arg	Trp
145					150					155					160
Ala	Ala	Leu	Pro	Ser	Asp	Cys	Pro	Leu	Val	Leu	Arg	Lys	Leu	Met	Leu
				165					170					175	
Lys	Glu	Asp	Thr	Arg	Ala	Gly	Cys	Lys	Cys	Leu	Val	Lys	Ala	Pro	Leu
			180					185					190		
Val	Ser		Val	Glu	Leu	Glu		Phe	Leu	Leu	Ala		Arg	Asp	Pro
		195					200		_	_		205			
Ser		Val	Leu	Val	Phe	Gly	He	He	Ser	Ser		Asn	Tyr	Thr	Ser
T)	210	61	,	61	Tr.	215	,		T)	,	220			6.1	6.1
	Gly	GIn	Leu	GIn		Leu	Leu	Asn	lhr		lyr	Asn	His	GIn	
225	C1		01	C	230 D		1.1	61	C	235	т		C	æ	240
Arg	GIY	Arg	GIY		Pro	Cys	11e	Gin		Arg	Tyr	Asp	Ser		Arg
Lau	Lan	Cln	T	245	Low	Aan	Con	Dago	250	Cln	C1	Aan	Davo	255 Pro-	1
ren	Leu	GIH	260	ASP	Leu	Asp	Se1.	265	Leu	OIII	01 u	ASP	270	110	Leu
Mot	Val	lve		Aen	Sor	Va]	Val		Clv	Mot	116	Lau		Pho	Ala
Me t	vai	275	Lys	лы	261	val	280	OIII	Oly	Met	.116	285	Met	1 116	Ма
Glv	Ġlv		Leu	He	Phe	Gly		Aro	Val	Len	Asn		Tyr	Glv	Len
01)	290	,	204	110	1 110	295	Oay	8	, ,,,	Leu	300	019	. , ,	Ou y	LCU
Ser		Gln	Asn	Leu	Leu	Lvs	Gln	He	Phe	Arg		Gln	Gln	Asp	Tyr

Lys Met Gly Tyr Phe Leu Pro Asp Asp Tyr Lys Phe Ser Val Pro Asn Ser Val Leu Ser Leu Glu Asp Ser Glu Ser Val Lys Lys Ala Glu Ser Glu Asp 11e Gln Gly Ser Ser Ser Ser Leu Ala Leu Glu Asp Tyr Val Glu Lys Glu Leu Ser Leu Glu Ala Glu Lys 

<210> 4937

<211> 455

<212> PRT

<213> Homo sapiens

<400> 560 Met Gly Val Ile Ile Ser Gly Ser Leu Pro Pro Phe Ser Ser Pro Leu Gln Val Gly Pro Val Ser Leu Leu Ala Ile Gly Val Leu Thr Val His Cys Met Val Ile Leu Leu Asn Cys Ala Gln His Leu Ser Gln Arg Leu Gln Lys Thr Phe Val Asn Tyr Gly Glu Ala Thr Met Tyr Gly Leu Glu Thr Cys Pro Asn Thr Trp Leu Arg Ala His Ala Val Trp Gly Arg Trp Asn Leu Ala Leu Ser Pro Arg Leu Glu Cys Ser Gly Lys 11e Ser Ala His Cys Asn Pro His Leu Gln Gly Ser Ser Asn Ser Pro Ala Gln Ala Ser Arg Val Ala Gly Ile Tyr Arg Tyr Thr Val Ser Phe Leu Leu Val

lle Thr Gln Leu Gly Phe Cys Ser Val Tyr Phe Met Phe Met Ala Asp

Asn Leu Gln Gln Met Val Glu Lys Ala His Val Thr Ser Asn Ile Cys

145					150					155					160
Gln	Pro	Arg	Glu	He	Leu	Thr	Leu	Thr	Pro	Ile	Leu	Asp	He	Arg	Phe
				165					170					175	
Tyr	Met	Leu	lle	He	Leu	Pro	Phe	Leu	He	Leu	Leu	Val	Phe	lle	G]n
			180					185					190		
Asn	Leu	Lys	Val	Leu	Ser	Val	Phe	Ser	Thr	Leu	Ala	Asn	He	Thr	Thr
		195					200					205			
Leu	Gly	Ser	Met	Ala	Leu	Ile	Phe	Glu	Tyr	He	Met	Glu	Gly	Ile	Pro
	210					215					220				
Tyr	Pro	Ser	Asn	Leu	Pro	Leu	Met	Ala	Asn	Trp	Lys	Thr	Phe	Leu	Leu
225					230					235					240
Phe	Phe	Gly	Thr	Ala	He	Phe	Thr	Phe	Glu	Gly	Val	Gly	Met	Val	Leu
				245					250					255	
Pro	Leu	lve	Aen	Gln	Mot	Lve	Hie	Pro	Gln	Gla	Pho	Sor	Dho	Val	Lou
.10	Leu	Lyo	260	OIII	me t	Lys	1113	265	OIII	OIII	THE	261	270	vai	Leu
Tvr	l.eu	Glv		Ser	He	Val	He		Leu	Tvr	He	Leu		Glv	Thr
- , -		275		501		,	280	110	БСС	.,,	110	285	Lou	<b>G</b> 1,	1111
Leu	Gly	Tyr	Met	Lys	Phe	Gly		Asp	Thr	Gln	Ala		Ile	Thr	Leu
	290					295					300				
Asn	Leu	Pro	Asn	Cys	Trp	Leu	Tyr	Gln	Ser	Val	Lys	Leu	Met	Tyr	Ser
305					310					315					320
11e	Gly	Ile	Phe	Phe	Thr	Tyr	Ala	Leu	Gln	Phe	His	Val	Pro	Ala	Glu
				325					330					335	
Пе	lle	lle	Pro	Phe	Ala	11e	Ser	Gln	Val	Ser	Glu	Ser	Trp	Ala	Leu
			340					345					350		
Phe	Val	Asp	Leu	Ser	Val	Arg	Ser	Ala	Leu	Val	Cys	Leu	Thr	Cys	Val
		355					360					365			
Ser	Ala	11e	Leu	lle	Pro	Arg	Leu	Asp	Leu	Val	He	Ser	Leu	Val	G] y
	370					375					380				
Ser	Val	Ser	Ser	Ser	Ala	Leu	Ala	Leu	lle	11e	Pro	Ala	Leu	Leu	Glu
385					390					395					400
He	Val	He	Phe	Tyr	Ser	Glu	Asp	Met	Ser	Cys	Val	Thr	lle	Ala	Lys
				405					410					415	
Asp	He	Met	He	Ser	He	Val	Gly	Leu	Leu	Gly	Cys	He	Phe	Gly	Thr
			420					425					430		

 Tyr
 Gln
 Ala
 Leu
 Tyr
 Glu
 Leu
 Pro
 Gln
 Pro
 Ile
 Ser
 His
 Ser
 Met
 Ala

 Asn
 Ser
 Thr
 Gly
 Val
 His
 Ala

 450
 455

<210> 4938

<211> 162

<212> PRT

<213> Homo sapiens

<400> 561

Met Ser Ile Thr Arg Leu His Glu Gln Lys Leu Val Gln His Val Val

1 5 10 15

Ser Gln Asn Cys Asp Gly Leu His Leu Arg Ser Gly Leu Pro Arg Thr
20 25 30

Ala Ile Ser Glu Leu His Gly Asn Met Tyr Ile Glu Val Ser Ser Pro 35 40 45

Ala Gly Thr Gln Gly Leu His Gly Gln Ala Gly Pro Thr His Cys Ala 50 55 60

Leu Leu Pro Leu Gly Leu Tyr Leu Leu Arg Ser Gln Gln Gly Val Arg
65 70 75 80

Ala Gly Val Arg Cys Asp Gly Ala His Cys Pro Pro Gln Thr Pro Asp
85 90 95

Arg Pro Asp Leu Pro Gln Val Trp Asp Pro Ala Ala Gly His His Cys 100 105 110

Ala Leu Trp Gly Glu Gly Asp Val Gly Ala Ala Ser Glu Leu Gly Ser 115 120 125

Gly Asp Arg Gly Cys Gln Gln Ser Arg His His Pro Val Ser Arg Val 130 135 140

Gln Pro Glu Gly Ser Lys Glu Val Pro Thr Pro Leu Val His Asp Gln 145 150 155 160

Ala Pro

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<210> 4939
<211> 567
<212> PRT
<213> Homo sapiens
<400> 562
Met Asp Asp Lys Asp lle Asp Lys Glu Leu Arg Gln Lys Leu Asn Phe
 l
                                      10
Ser Tyr Cys Glu Glu Thr Glu Ile Glu Gly Gln Lys Lys Val Glu Glu
             20
                                 25
Ser Arg Glu Ala Ser Ser Gln Thr Pro Glu Lys Gly Glu Val Gln Asp
                             40
Ser Glu Ala Lys Gly Thr Pro Pro Trp Thr Pro Leu Ser Asn Val His
     50
                         55
                                              60
Glu Leu Asp Thr Ser Ser Glu Lys Asp Lys Glu Ser Pro Asp Gln Ile
                     70
                                          75
Leu Arg Thr Pro Val Ser His Pro Leu Lys Cys Pro Glu Thr Pro Ala
                 85
                                      90
Gln Pro Asp Ser Arg Ser Lys Leu Leu Pro Ser Asp Ser Pro Ser Thr
            100
                                105
                                                     110
Pro Lys Thr Met Leu Ser Arg Leu Val 11e Ser Pro Thr Gly Lys Leu
                            120
                                                 125
Pro Ser Arg Gly Pro Lys His Leu Lys Leu Thr Pro Ala Pro Leu Lys
    130
                        135
                                             140
Asp Glu Met Thr Ser Leu Ala Leu Val Asn Ile Asn Pro Phe Thr Pro
                    150
                                         155
                                                             160
Glu Ser Tyr Lys Lys Leu Phe Leu Gln Ser Gly Gly Lys Arg Lys Ile
                165
                                    170
Arg Gly Asp Leu Glu Glu Ala Gly Pro Glu Glu Gly Lys Gly Gly Leu
            180
                                185
                                                     190
Pro Ala Lys Arg Cys Val Leu Arg Glu Thr Asn Met Ala Ser Arg Tyr
                            200
                                                 205
Glu Lys Glu Phe Leu Glu Val Glu Lys lle Gly Val Gly Glu Phe Gly
    210
                        215
                                             220
Thr Val Tyr Lys Cys lle Lys Arg Leu Asp Gly Cys Val Tyr Ala Ile
```

sn Ser Ala

255

ro His Val

**70**0

le Ile Gln

≼er Glu Asn

💶 Ile Leu

320

er Met Val

335

ys Vâl Gln

**5**0

la Asp Trp

îly His Ala

rg Phe Leu

400

ys Ala Asp

415

la Glu Ser

ly Asn Phe

<u>w</u>u Leu Lys

la Ala Leu

480

lu Glu Leu

495

🖭 Glu Arg

**H**Q

yr Thr His

<210> 4940

<211> 140

<212> PRT

<213> Homo sapiens

<400> 563

Met Asp Phe lle Val Ala Ala Ser Asn Leu Arg Ala Glu Asn Tyr Asp

1 5 10 15

Ile Pro Ser Ala Asp Arg His Lys Ser Lys Leu Ile Ala Gly Lys Ile
20 25 30

Ile Pro Ala Ile Ala Thr Thr Thr Ala Ala Val Val Gly Leu Val Cys 35 40 45

Leu Glu Leu Tyr Lys Val Val Gln Gly His Arg Gln Leu Asp Ser Tyr 50 55 60

Lys Asn Gly Phe Leu Asn Leu Ala Leu Pro Phe Phe Gly Phe Ser Glu 65 70 75 80

Pro Leu Ala Ala Pro Arg His Gln Tyr Tyr Asn Gln Glu Trp Thr Leu 85 90 95

Trp Asp Arg Phe Glu Val Gln Gly Leu Gln Pro Asn Gly Glu Glu Met
100 105 110

Thr Leu Lys Gln Phe Leu Asp Tyr Phe Lys Val Arg Pro Leu Pro Tyr 115 120 125

Ser Val Thr Pro Pro Gln Gly Ala Arg Cys Thr Arg 130 135 140

<210> 4941

<211> 477

<213> Homo sapiens <400> 564 Met Ser Ala Ala Pro Gly Leu Leu His Gln Glu Leu Ser Cys Pro Leu Cys Leu Gln Leu Phe Asp Ala Pro Val Thr Ala Glu Cys Gly His Ser Phe Cys Arg Ala Cys Leu Gly Arg Val Ala Gly Glu Pro Ala Ala Asp Gly Thr Val Leu Cys Pro Cys Cys Gln Ala Pro Thr Arg Pro Gln Ala Leu Ser Thr Asn Leu Gln Leu Ala Arg Leu Val Glu Gly Leu Ala Gln Val Pro Gln Gly His Cys Glu Glu His Leu Asp Pro Leu Ser lle Tyr Cys Glu Gln Asp Arg Ala Leu Val Cys Gly Val Cys Ala Ser Leu Gly Ser His Arg Gly His Arg Leu Leu Pro Ala Ala Glu Ala His Ala Arg Leu Lys Thr Gln Leu Pro Gln Gln Lys Leu Gln Leu Gln Glu Ala Cys Met Arg Lys Glu Lys Ser Val Ala Val Leu Glu His Gln Leu Val Glu Val Glu Glu Thr Val Arg Gln Phe Arg Gly Ala Val Gly Glu Gln Leu Gly Lys Met Arg Val Phe Leu Ala Ala Leu Glu Gly Ser Leu Asp Cys Glu Ala Glu Arg Val Arg Gly Glu Ala Gly Val Ala Leu Arg Arg Glu Leu Gly Ser Leu Asn Ser Tyr Leu Glu Gln Leu Arg Gln Met Glu Lys Val Leu Glu Glu Val Ala Asp Lys Pro Gln Thr Glu Phe Leu Met Lys 

Tyr Cys Leu Val Thr Ser Arg Leu Gln Lys Ile Leu Ala Glu Ser Pro

<212> PRT

```
Pro Pro Ala Arg Leu Asp Ile Gln Leu Pro Ile Ile Ser Asp Asp Phe
                                265
Lys Phe Gln Val Trp Arg Lys Met Phe Arg Ala Leu Met Pro Ala Leu
                            280
                                                285
Glu Glu Leu Thr Phe Asp Pro Ser Ser Ala His Pro Ser Leu Val Val
                        295
                                            300
Ser Ser Ser Gly Arg Arg Val Glu Cys Ser Glu Gln Lys Ala Pro Pro
                    310
                                        315
                                                            320
Ala Gly Glu Asp Pro Arg Gln Phe Asp Lys Ala Val Ala Val Val Ala
                                    330
                325
                                                        335
His Gln Gln Leu Ser Glu Gly Glu His Tyr Trp Glu Val Asp Val Gly
            340
                                345
Asp Lys Pro Arg Trp Ala Leu Gly Val lle Ala Ala Glu Ala Pro Arg
        355
                            360
                                                365
Arg Gly Arg Leu His Ala Val Pro Ser Gln Gly Leu Trp Leu Leu Gly
                        375
Leu Arg Glu Gly Lys Ile Leu Glu Ala His Val Glu Ala Lys Glu Pro
                    390
                                        395
Arg Ala Leu Arg Ser Pro Glu Arg Arg Pro Thr Arg Ile Gly Leu Tyr
                405
                                    410
Leu Ser Phe Gly Asp Gly Val Leu Ser Phe Tyr Asp Ala Ser Asp Ala
                                425
Asp Ala Leu Val Pro Leu Phe Ala Phe His Glu Arg Leu Pro Arg Pro
        435
                            440
                                                445
Val Tyr Pro Phe Phe Asp Val Cys Trp His Asp Lys Gly Lys Asn Ala
                        455
Gln Pro Leu Leu Val Gly Pro Glu Gly Ala Glu Ala
                    470
                                        475
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<211> 505

<212> PRT

<213> Homo sapiens

<400> 565

Met	Ala	Val	Ala	Leu	Asp	Ser	Gln	He	Asp	Ala	Pro	Leu	Glu	Val	Glu
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Gly	Cys	Leu	He	Met	Lys	Val	$\hbox{\rm Gl} u$	Lys	Asp	Pro	Glu	Trp	Ala	Ser	Glu
			20					25					30		
Pro	lle	Leu	Glu	Gly	Ser	Asp	Ser	Ser	Glu	Thr	Phe	Arg	Lys	Cys	Phe
		35					40					45			
Arg	Gln	Phe	Cys	Tyr	Glu	Asp	Val	Thr	Gly	Pro	His	Glu	Ala	Phe	Ser
	50					55					60				
Lys	Leu	Trp	Glu	Leu	Cys	Cys	Arg	Trp	Leu	Lys	Pro	Glu	Met	Arg	Ser
65					70					75					80
Lys	Glu	Gln	He	Leu	Glu	Leu	Leu	Val	Ile	Glu	Gln	Phe	Leu	Thr	Ile
				85					90					95	
Leu	Pro	Glu	Lys	He	Gln	Ala	Trp	Ala	Gln	Lys	Gln	Cys	Pro	Gln	Ser
			100	,				105					110		
Gly	Glu	Glu	Ala	Val	Ala	Leu	Val	Val	His	Leu	Glu	Lys	Glu	Thr	Gly
		115					120					125			
Arg	Leu	Arg	Gln	Gln	Val	Ser	Ser	Pro	Val	His	Arg	Glu	Lys	His	Ser
	130					135					140				
Pro	Leu	Gly	Ala	Ala	Trp	Glu	Val	Ala	Asp	Phe	Gln	Pro	Glu	Gln	Val
145					150					155					160
Glu	Thr	Gln	Pro	Arg	Ala	Val	Ser	Arg	Glu	Glu	Pro	Gly	Ser	Leu	His
				165					170					175	
Ser	Gly	His		Glu	Gln	Leu	Asn		Lys	Arg	Glu	Arg	Arg	Pro	Leu
			180					185					190		
Pro	Lys		Ala	Arg	Pro	Ser		Trp	Va]	Pro	Ala		Ala	Asp	Glu
_		195					200					205			
Trp		Thr	Leu	Asp	GIn		Val	Thr	Thr	Thr		Leu	Pro	Ala	Gly
C	210	61	15		,	215	17 1		v 1	. 1	220	61	131	C	T
	GIn	61u	Pro	Val		Asp	Val	HIS	Val		Arg	Gly	Phe	Ser	
225	1	c	V . 1	11.5	230	71.	D	A 1 .	C1	235	Α	1	т	A	240
Arg	Lys	ser	vai		GIN	116	Pro	Ala		Arg	Asp	Leu	lyr	Arg	Asp
DL -	Λ	1	C1	245	V = 1	CI	۸	V = 1	250 Val	C	1	C1	Can	255	Vol
CHE	лгg	rys	260	ASII	val	ΩŢŸ	ASII	265	val	ser	Leu	ыу	270	Ala	val
Son	The	Son		Lvc	11.	Thr	A 2 2 2		61	Cl <sub>2</sub>	A 25.07	Lvc		Pro	Trr
261	1111	275	ASII	r\2	116	1111	280	Leu	Olu	OIH	ия	285	Olu	110	ııβ
		410					400					200			

Thr	Leu	Gly	Leu	His	Ser	Ser	Asn	Lys	Arg	Ser	He	Leu	Arg	Ser	Asn
	290					295					300				
Tyr	Val	Lys	Glu	Lys	Ser	Val	His	Ala	He	Gln	Val	Pro	Ala	Arg	Ser
305					310					315					320
Ala	Gly	Lys	Thr	Trp	Arg	Glu	Gln	Gln	Gln	Trp	Gly	Leu	Glu	Лsp	Glu
				325					330					335	
Lys	11e	Ala	Gly	Val	His	Trp	Ser	Tyr	Glu	Glu	Thr	Lys	Thr	Phe	Leu
			340					345					350		
Ala	He	Leu	Lys	Glu	Ser	Arg	Phe	Tyr	Glu	Thr	Leu	Gln	Ala	Cys	Pro
		355					360					365			
Arg	Asn	Ser	Gln	Val	Tyr	Gly	Ala	Val	Ala	Glu	Trp	Leu	Arg	Glu	Cys
	370					375					380				
Gly	Phe	Leu	Arg	Thr	Pro	Glu	Gln	Cys	Arg	Thr	Lys	Phe	Lys	Ser	Leu
385					390					395					400
Gln	Lys	Ser	Tyr	Arg	Lys	Val	Arg	Asn	Gly	His	Met	Leu	Glu	Pro	Cys
				405					410					415	
Ala	Phe	Phe	Glu	Asp	Met	Asp	Ala	Leu	Leu	Asn	Pro	Ala	Ala	Arg	Ala
			420					425					430		
Pro	Ser	Thr	Asp	Lys	Pro	Lys	Glu	Met	He	Pro	Val	Pro	Arg	Leu	Lys
		435					440					445			
Arg	11e	Ala	He	Ser	Ala	Lys	Glu	His	lle	Ser	Leu	Val	Glu	Glu	Glu
	450					455					460				
Glu	Ala	Ala	Glu	Asp	Ser	Asp	Asp	Asp	Glu	He	Gly	lle	Glu	Phe	lle
465					470					475					480
Arg	Lys	Ser	Glu	He	His	Gly	Ala	Pro	Val	Leu	Phe	Gln	Asn	Leu	Ser
				485					490					495	
Gly	Lys	Asn	Cys	Ala	Leu	Phe	Leu	Trp							
			500					505							

<211> 133

<212> PRT

<213> Homo sapiens

<400> 566

Met Pro Pro Leu Ala Arg Ser Pro Arg Ala Ser Ile Val Ala Leu Arg 10 Lys Met Ile Thr Ser Phe Leu Ala Leu Trp Trp His Val Cys Val Cys 20 25 30 lle Cys Ile Tyr Thr His Ile Tyr Ile Asn Thr Gln Thr His Ile Tyr Thr Asn Thr Arg lle His Phe Arg Pro Gln Phe Leu Ala His Asn Ser 55 His Ser Pro Cys Tyr Thr Leu Leu Leu Gln His Trp Val Cys Gln Ala 70 75 Ser Gly Asp Asn His Ser Asn Leu Leu Pro Phe Leu Leu Pro Ala Gln 90 85 Asp Arg Thr Leu Ile Phe Pro Thr Phe Leu Met Val Gly His Lys Thr 100 105 110 His Ser Arg Asp Gly Pro Thr Pro Tyr Pro Ala Arg Arg Asn Ala Ala 115 120 125 Val Met Lys Leu Pro 130

<210> 4944

<211> 502

<212> PRT

<213> Homo sapiens

<400> 567

Met Val Gln Tyr His Gly Ala Glu Ala Ala Gln Arg Phe lle Leu Thr 1 5 10 15

Val Met Asn Met Val Tyr Asn Met Phe Gln His Gln Ser Leu Gly 11e 20 25 30

Lys 11e Asn 11e Gln Val Thr Lys Leu Val Leu Leu Arg Gln Arg Pro 35 40 45

Ala Lys Leu Ser lle Gly His His Gly Glu Arg Ser Leu Glu Ser Phe 50 55 60

Cys His Trp Gln Asn Glu Glu Tyr Gly Gly Ala Arg Tyr Leu Gly Asn 65 70 75 80

Val         Wal         Thr         Arg         Thr         Asp         Phe         Cys         Val         His         Lys         Asp         Hop         Cys         Val         His         Lys         Asp         His         Tys         Leu         Ilos         Us         Lys         Arg         Ala         Tys         Eug         Gly         Gly         Val         Cys         Ala         Lys         Arg         Ilos         Us         Ilos         Ilos <th>Asn</th> <th>Gln</th> <th>Val</th> <th>Pro</th> <th>Gly 85</th> <th>Gly</th> <th>Lys</th> <th>Asp</th> <th>Asp</th> <th>Pro 90</th> <th>Pro</th> <th>Leu</th> <th>Val</th> <th>Asp</th> <th>Ala 95</th> <th>Ala</th>	Asn	Gln	Val	Pro	Gly 85	Gly	Lys	Asp	Asp	Pro 90	Pro	Leu	Val	Asp	Ala 95	Ala
Asp   The   Val   Gly   Ite   Ala   Tyr   Leu   Gly   Gly   Val   Cys   Ser   Ala   Lys   Arg   Lus   Ite	Val	Phe	Val	Thr	Arg	Thr	Asp	Phe	Cys	Val	His	Lys	Asp	Glu	Pro	Cys
The color of the																
Lys         Val         Leu         Ala         Glu         Asp         Asp         Asp         Leu         Asp         Leu         Asp         Leu         His         Asp         Asp         Asp         Leu         Asp         Leu         His         Asp         Asp         Asp         His         Asp         Asp <td>Asp</td> <td>Thr</td> <td>Val</td> <td>Gly</td> <td>Пe</td> <td>Ala</td> <td>Tyr</td> <td>Leu</td> <td>G1 y</td> <td>Gly</td> <td>Val</td> <td>Cys</td> <td>Ser</td> <td>Ala</td> <td>Lys</td> <td>Arg</td>	Asp	Thr	Val	Gly	Пe	Ala	Tyr	Leu	G1 y	Gly	Val	Cys	Ser	Ala	Lys	Arg
130			115					120					125			
Ala His Glu Leu         Gly His Asn Leu Gly His Asn Leu Gly Met Gly Met Gly His Gly Hi	Lys	Cys	Val	Leu	Ala	Glu	Asp	Asn	Gly	Leu	Asn	Leu	Ala	Phe	Thr	He
148		130					135					140				
Ser         Cys         Ala         Gly         Arg         Ser         His         11e         Met         Ser         Gly         Gly         Val         Lys         17e         Fro         Ser         Asp         Leu         Ser         Trp         Ser         Cys         Ser         Arg         Asp         Asp         Asp         Leu         Ser         Trp         Ser         Ser         Cys         Ser         Cys         Ser         Cys         Arg         Asp         Asp         Asp         Asp         Leu         Lys         Ser         Lys         Ser         Trp         Cys         Ser         Trp         Lys         Ser         Trp         Ser         Trp         Ser         Trp         Ser         Trp         Ser         Trp         Ser         Met         Trp         Ser         Trp         Ser         Arg         Arg         Arg         Trp         Ger         Trp         Ger         Trp         Ger         Ger <td>Ala</td> <td>His</td> <td>Glu</td> <td>Leu</td> <td>Gly</td> <td>His</td> <td>Asn</td> <td>Leu</td> <td>Gly</td> <td>Met</td> <td>Asn</td> <td>His</td> <td>Asp</td> <td>Asp</td> <td>Asp</td> <td>His</td>	Ala	His	Glu	Leu	Gly	His	Asn	Leu	Gly	Met	Asn	His	Asp	Asp	Asp	His
Control   Cont	145					150		•			155					160
Gly       Arg       Arg       Pro       Ser       Asp       Leu       Ser       Trp       Ser       Cys       Ser       Arg       Asp       A	Ser	Ser	Cys	Ala	Gly	Arg	Ser	His	lle	Met	Ser	Gly	Glu	Trp	Val	Lys
Leu   Harman   Harman					165					170					175	
Leu       Glu       Asn       Phe       Leu       Lys       Ser       Lys       Val       Ser       Thr       Cys       Leu       Leu       Val       Thr         Asp       Pro       Arg       Ser       Gln       His       Thr       Val       Arg       Leu       Pro       His       Lys       Leu       Pro       Gly       Lys       Pro       Gly       Pro       Gly       Pro       His       Lys       Lys       Hus       Lys       Lys       Hus       Lys       Lys       Lys       Hus       Hus       Hus       Arg       A	Gly	Arg	Asn	Pro	Ser	Asp	Leu	Ser	Trp	Ser	Ser	Cys	Ser	Arg	Asp	Asp
Asp Pro Arg Ser Gln His Thr Val Arg Cys Us Us Us Us Pro His Lys Leu Pro Gly 210 Us				180					185			.*		190		
Asp Pro Arg Ser Gln His Thr Val Arg Leu Pro His Lys Leu Pro Gly 210	Leu	Glu	Asn	Phe	Leu	Lys	Ser	Lys	Val	Ser	Thr	Cys	Leu	Leu	Val	Thr
210       318       320 <th< td=""><td></td><td></td><td>195</td><td></td><td></td><td></td><td></td><td>200</td><td></td><td></td><td></td><td></td><td>205</td><td></td><td></td><td></td></th<>			195					200					205			
Met       His       Tyr       Ser       Ala       Asn       Glu       Gln       Cys       Gln       11e       Leu       Phe       Gly       Met       Asn       240         Ala       Thr       Phe       Cys       Arg       Asn       Met       Glu       His       Leu       Met       Cys       Ala       Gly       Leu       Trp       240         Cys       Leu       Phe       Cys       Arg       Asn       Met       Glu       His       Leu       Met       Cys       Ala       Gly       Pro       Pro       Pro       Pro       250       Leu       Ala       Alg       Pro       Pro       250       Leu       Ala       Ala       Pro       Pro       265       Leu       Leu       Asp       Pro       Pro       265       Leu       Arg       Trp       Pro       Pro       265       Leu       270       Leu       Arg       Pro       Pro       Ala       Asp       Leu       Arg       Rra       Arg       A	Asp	Pro	Arg	Ser	Gln	His	Thr	Val	Arg	Leu	Pro	His	Lys	Leu	Pro	Gly
225		210					215					220				
Ala Rhr Phe Rys Arg Asn Met Glu His Leu Met Cys Ala Gly Leu Trp 245	Met	His	Tyr	Ser	Ala	Asn	Glu	Gln	Cys	Gln	He	Leu	Phe	Gly	Met	Asn
Cys       Leu       Val       Glu       Gly       Asp       Thr       Ser       Cys       Lys       Thr       Lys       Leu       Asp       Pro       Pro         Leu       Asp       Gly       Thr       Gly       Asp       Gly       Ala       Asp       Lys       Trp       Cys       Arg       Ala       Gly       Asp       Lys       Trp       Gly       Arg       Ala       Asp       Lys       Trp       Arg       Arg       Ala       Asp       Arg	225					230					235					240
Cys       Leu       Val       Glu       Gly       Asp       Thr       Ser       Cys       Lys       Thr       Lys       Leu       Asp       Pro       Pro         Leu       Asp       Gly       Thr       Gly       Ala       Asp       Lys       Trp       Cys       Arg       Ala       Gly       Ala       Asp       Lys       Trp       Cys       Arg       Ala       Gly       Ala       Asp       Lys       Trp       Gly       Arg       Ala       Asp       Arg       A	Ala	Thr	Phe	Cys	Arg	Asn	Met	Glu	His	Leu	Met	Cys	Ala	Gly	Leu	Trp
Leu Asp Gly Thr Glu Cys Gly Ala Asp Lys Trp Cys Arg Ala Gly Glu  Cys Val Ser Lys Thr Pro 11e Pro Glu His Val Asp Gly Ala Asp Syr Trp Ser  Pro Trp Gly Ala Trp Ser Met Cys Asp Asp Asp Siz Trp Gly Gly Ala  Arg Phe Arg Gln Arg Lys Cys Asp Asp Asp Pro Pro Pro Gly Pro Gly Gly Gly  Thr His Cys Pro Gly Ala Ser Val Gly Ala Ser Val Gly His Ala Val Cys Gly Asp Leu  340 Leu 340 Leu 345 Leu  350 Leu 350 Leu  361 Arg Asp Asp Asp Ala Val Cys Gly Asp Asp Ala Ser Val Gly His Ala Val Cys Gly Asp Leu					245					250					255	
Leu       Asp       Gly       Thr       Glu       Cys       Gly       Ala       Asp       Lys       Trp       Cys       Arg       Ala       Gly       Glu         Cys       Val       Ser       Lys       Thr       Pro       Ile       Pro       Glu       His       Val       Asp       Gly       Asp       Trp       Ser         Pro       Trp       Gly       Ala       Trp       Ser       Met       Cys       Ser       Arg       Thr       Cys       Gly       Arg       Thr       Gly       Ala         305       Trr       310       Trr       Trr       Trr       310       Trr       Trr       Trr       310       Trr       320         Arg       Phe       Arg       Gln       Arg       Lys       Cys       Asp       Asp       Pro       Pro       Gly       Pro       Gly       Gly       Gly       Gly       Gly       Arg       Ile       I	Cys	Leu	Val	Glu	Gly	Asp	Thr	Ser	Cys	Lys	Thr	Lys	Leu	Asp	Pro	Pro
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				260					265					270		
Cys       Val       Ser       Lys       Thr       Pro       11e       Pro       Glu       His       Val       Asp       Gly       Asp       Trp       Ser         290	Leu	Asp	Gly	Thr	Glu	Cys	Gly	Ala	Asp	Lys	Trp	Cys	Arg	Ala	Gly	Glu
290       295       300       310       Ala Ber																
Pro       Trp       G1y       A1a       Trp       Ser       Met       Cys       Ser       Arg       Thr       Cys       G1y       Thr       G1y       Ala         305	Cys		Ser	Lys	Thr	Pro		Pro	Glu	His	Val		Gly	Asp	Trp	Ser
305   310   320   315   320   320   320   320   320   325																
Arg Phe Arg Gln Arg Lys Cys Asp Asn Pro Pro Pro Gly Pro Gly Gly Gly  Thr His Cys Pro Gly Ala Ser Val Glu His Ala Val Cys Glu Asn Leu  340		Trp	Gly	Ala	Trp		Met	Cys	Ser	Arg		Cys	Gly	Thr	Gly	
Thr His Cys       Pro Gly Ala Ser Val Glu His Ala Val Cys Glu Asn Leu         340       345				6.1											0.1	
Thr His Cys Pro Gly Ala Ser Val Glu His Ala Val Cys Glu Asn Leu 340 345 350	Arg	Phe	Arg	Gln		Lys	Cys	Asp	Asn		Pro	Pro	Gly	Pro		Gly
340 345 350	m)					. 1			61				0	6.1		,
	Ihr	H1S	Cys		Gly	Ala	Ser	Val		H1s	Ala	val	Cis		Asn	Leu
rro cys rro Lys Gly Leu Pro Ser Phe Arg Asp Gln Gln Cys Gln Ala	D.	C.	D.		C1	1	D.	Ċ		۸.	Δ.	C1	C1		C1.	A 7 -
355 360 365	rro	Cys		Lys	GIY	Leu	rro		rne	arg	Asp	oin		cys	GIN	ита

His Asp Arg Leu Ser Pro Lys Lys Gly Leu Leu Thr Ala Val Val Val Asp Asp Lys Pro Cys Glu Leu Tyr Cys Ser Pro Leu Gly Lys Glu Ser Pro Leu Leu Val Ala Asp Arg Val Leu Asp Gly Thr Pro Cys Gly Pro Tyr Glu Thr Asp Leu Cys Val His Gly Lys Cys Gln Lys Ile Gly Cys Asp Gly Ile Ile Gly Ser Ala Ala Lys Glu Asp Arg Cys Gly Val Cys Ser Gly Asp Gly Lys Thr Cys His Leu Ala Lys Gly Asp Phe Ser His Ala Arg Gly Thr Gly Tyr Ile Glu Ala Ala Val Ile Pro Ala Gly Ala Arg Arg Ile Arg Val Val Glu Asp Lys Pro Ala His Ser Phe Leu Gly Lys Thr Gln Met Thr 

<210> 4945

<211> 356

<212> PRT

<213> Homo sapiens

<400> 568

 Met
 Val
 11e
 Lys
 Gln
 Met
 Leu
 11e
 Arg
 Asp
 Pro
 Phe
 Pro
 Ser
 Leu
 Ser

 1
 5
 5
 10
 10
 15
 15

 Leu
 Ala
 Met
 Asp
 Arg
 Met
 Lys
 Lys
 1le
 Lys
 Arg
 Gln
 Leu

 Ser
 Met
 Thr
 Leu
 Arg
 Gly
 Arg
 Gly
 1le
 Asp
 Lys
 Thr
 Asn
 Gly
 Ala

 Pro
 Glu
 Gln
 Ile
 Gly
 Gly
 Gly
 Gly
 Gly
 Gly
 Gly
 Gly
 Gly
 Ser
 Asp

 Fro
 Gly
 Glu
 Ala
 Ala

Arg	Gly	Pro	Leu		Ser	Ala	Pro	Glu		Val	His	Glu	Asp	Leu	Lys
				85					90					95	
Met	Gly	Ser	Asp	Gly	G]u	Ser	Asp	Gln	Ala	Ser	Ala	Thr	Ser	Ser	Asp
			100					105					110		
Glu	Val	Gln	Ser	Pro	Val	Arg	Val	Arg	Met	Arg	Asn	His	Pro	Pro	Arg
		115					120					125			
Lys	He	Ser	Thr	Glu	Asp	He	Asn	Lys	Arg	Leu	Ser	Leu	Pro	Ala	Asp
	130					135					140				
Ile	Arg	Leu	Pro	Glu	Gly	Tyr	Leu	Glu	Lys	Leu	Thr	Leu	Asn	Ser	Pro
145					150					155					160
Ile	Phe	Asp	Lys	Pro	Leu	Ser	Arg	Arg	Leu	Arg	Arg	Va]	Ser	Leu	Ser
				165					170					175	
Glu	Ile	Gly	Phe	Gly	Lys	Leu	Glu	Thr	Tyr	He	Lys	Leu	Asp	Lys	Leu
			180					185					190		
Gly	Glu	Gly	Thr	Tyr	Ala	Thr	Val	Tyr	Lys	Gly	Lys	Ser	Lys	Leu	Thr
		195					200					205			
Asp	Asn	Leu	Val	Ala	Leu	Lys	Glu	lle	Arg	Leu	Glu	His	Glu	Glu	Gly
	210					215					220				
Ala	Pro	Cys	Thr	Ala	lle	Arg	Glu	Val	Ser	Leu	Leu	Lys	Asp	Leu	Lys
225					230					235					240
His	Ala	Asn	He	Val	Thr	Leu	His	Asp	He	He	His	Thr	Glu	Lys	Ser
				245					250					255	
Leu	Thr	Leu	Val	Phe	Glu	Tyr	Leu	Asp	Lys	Asp	Leu	Lys	Gln	Tyr	Leu
			260					265					270		
Asp	Asp	Cys	Gly	Asn	He	He	Asn	Met	His	Asn	Val	Lys	Val	Gly	Va]
		275					280					285			
Gly	Gln	Glu	Ala	Gly	Ala	Gln	Gly	Gly	Pro	His	Ser	Pro	Thr	Pro	Thr
	290					295					300				
His	Lys	Ser	Pro	Arg	Asn	Gly	Leu	Phe	Pro	Leu	Ala	Phe	Phe	Ala	Arg
305					310					315					320
Ser	Pro	Trp	Arg	Ala	Leu	Gly	Pro	Cys	Pro	Leu	Leu	Cys	Asp	Lys	Ala
				325					330					335	
Leu	Gly	Leu	Val	Ser	Val	Phe	Gly	Arg	Gly	Ala	Va1	Pro	Ala	G1 y	Gly
			340					345					350		
Arg	Ala	Ser	Gly												
		355													

<210> 4946 <211> 126 <212> PRT <213> Homo sapiens <400> 569 Met Met Ile Thr Ala His Tyr Ser Leu Asp Phe Thr Gly Ser Gly Asp 10 Phe Pro Thr Ser Ala Ser Arg Val Ala Gly Thr Thr Gly Thr His His 25 His Thr Gln Leu lle Phe Cys Ile Phe Ser Arg Gly Arg Val Leu Pro 45 35 40 Cys Cys Pro Gly Trp Ser Arg Thr Pro Gly Leu Lys Gln Ser Ala His 55 Leu Gly Leu Pro Lys Cys Trp Ile Thr Gly Met Ser Arg Cys Ala Gln 70 75 65 80 Pro Lys Ile Ile Phe Ile Leu Phe Ile Gly Ser Ser Phe Ile Ala Leu 85 90 Glu Ile Gln Ala Ala Arg Tyr Cys Asp Trp Cys lle Trp Thr Tyr Leu 100 105 Trp Ser Lys Thr Gly Thr His Gln Ile Val Ala Leu Ala Asn 115 120 125

<210> 4947

<211> 141

<212> PRT

<213> Homo sapiens

<400> 570

Met Leu Leu Trp Thr Leu Gln Tyr Lys Cys Leu Thr Lys Ser Leu Leu

1 5 10 15

Leu Ile Leu Trp Gly Ile Tyr Ile Lys Val Glu Leu Leu Asp His Leu

Val Val Leu His Phe Thr Phe Phe Arg Asp Cys His 11e Val Phe His Ser Asp Cys Thr Ile Leu Tyr Ser Leu Arg Gln Tyr Ala Arg Val Leu Ile Ser Pro Tyr Ser His Gln His Leu Phe Ser Val Leu Arg Ile Ile Ala Ile Leu Arg Gly Val Met Trp Tyr Leu Ile Glu Val Ser Ile Cys Ile Ser Leu Met Ile Ser Asp Val Glu Cys Phe Phe Met Tyr Phe Leu Ala Ile Cys Ile Ser Pro Leu Lys Lys Tyr Gln Tyr Gln Val lle Cys Ser Cys Leu Ile Glu Leu Leu Cys Cys Gly Gly Phe Tyr 

<210> 4948

<211> 152

<212> PRT

<213> Homo sapiens

<400> 571

Met Gly Phe His Tyr Val Gly Gln Ala Gly Leu Glu Leu Leu Thr Ser Gly Asp Pro Leu Ala Ser Ala Phe Gln Ser Ala Gly Ile Ile Gly Val Ser His Arg Thr Trp Gly Gly Tyr Cys Leu Lys Lys Lys Ser Pro Asp Ser Asp Pro Leu Ser Thr Trp Arg Thr Ser Thr Gly Arg Lys Gln Met Leu Gln 11e Phe Lys Tyr Pro Asp Gly Phe Gly Ser Gln Gly Glu Arg Asp Leu Thr Ser Val Tyr His Pro Thr Leu Ser Thr Lys Val Thr Ile 

Asn Thr Lys Ser Ile Ala Trp Ala Thr Gly Lys Lys Ala Phe Ile Cys

Ile Asn Val Cys Val Tyr Ile His Cys Phe Phe Phe Lys Arg Leu Gly Leu Pro Leu Ser Pro Arg Leu Glu His Ser Gly Thr Ile Ile Ala His Cys Ser Leu Gln Arg Cys Gly <210> 4949 <211> 168 <212> PRT <213> Homo sapiens <400> 572 Met Tyr Pro Ser Asn Lys Lys Lys Val Trp Arg Glu Glu Lys Glu Arg Leu Leu Lys Met Thr Leu Glu Glu Arg Arg Lys Glu Tyr Leu Arg Asp Tyr Ile Pro Leu Asn Ser Ile Leu Ser Trp Lys Glu Glu Met Lys Gly Lys Gly Gln Asn Asp Glu Glu Asn Ile Gln Glu Thr Ser Gln Val Lys Lys Ser Leu Thr Glu Lys Val Ser Leu Tyr Arg Gly Asp 11e Thr Leu Leu Glu Val Asp Ala Ile Val Asn Ala Ala Asn Ala Ser Leu Leu Gly Gly Gly Val Asp Gly Cys Ile His Arg Ala Ala Gly Pro Cys Leu Leu Ala Glu Cys Arg Asn Leu Asn Gly Cys Asp Thr Gly His Ala Lys lle Thr Cys Gly Tyr Asp Leu Pro Ala Lys Tyr Val Ile His Thr Val Gly Pro Ile Ala Arg Ala Ile Leu Met Val Pro Thr Arg Lys Thr 

Leu Gln Ile Ala Ile Asn His Leu

165

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<210> 4950
<211> 151
<212> PRT
<213> Homo sapiens
<400> 573
Met Gly Leu Gly Gly Val Ser Arg Glu Ala Gly Leu Leu Leu Ser
Ser Pro Cys Pro Asp Pro Ser Val Cys Leu Ser Asp Lys Pro Val Pro
                                 25
Glu Glu Ser Glu Gly Pro Gly Ser Pro Pro Pro Tyr Lys Met Ile Gln
         35
                             40
                                                  45
Thr Ile Gly Leu Ser Val Gly Ala Ala Val Ala Tyr Ile Ile Ala Val
                         55
Leu Gly Leu Met Phe Tyr Cys Lys Lys Arg Cys Lys Ala Lys Arg Leu
65
                     70
                                         75
                                                              80
Gln Lys Gln Pro Glu Gly Glu Glu Pro Glu Met Glu Cys Leu Asn Gly
                 85
Gly Pro Leu Gln Asn Gly Gln Pro Ser Ala Glu Ile Gln Glu Glu Val
                                105
Ala Leu Thr Ser Leu Gly Ser Gly Pro Ala Ala Thr Asn Lys Arg His
        115
                            120
                                                 125
Ser Thr Ser Asp Lys Met His Phe Pro Arg Ser Ser Leu Gln Pro lle
                        135
                                            140
Thr Thr Leu Gly Met Leu Pro
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<210> 4951

145

<211> 182

<212> PRT

<213> Homo sapiens

<400> 574 Met Leu Pro Thr Ala Ala Gly Phe Ser Ile Trp Gly Gln Val Gly Ala 10 Ala Arg Glu Ala Pro Arg Cys Gln Thr Lys Ile Ser Ser Cys Ser Cys 20 25 Pro Thr Ser Ser Val Ser Ala Ala His Gly Pro Gly Pro Asn Glu Arg 40 Ala Arg Gly Leu Gly Gly Leu Pro Asp Pro Ala Leu Ser Pro Arg Val 50 55 Pro Phe Gln Gly Tyr Ala Arg Ile Val Phe Ala Ile Ile Ser Phe Tyr 75 70 Phe Met Pro Cys Cys Pro Leu Thr Ala Ser Ser Phe Tyr Leu Leu Ser 85 90 Gly Leu Leu Asp Ala Phe Asp Gly His Ala Ala Arg Ala Leu Asn Gln 100 105 110 Gly Thr Arg Phe Gly Ala Met Leu Asp Met Leu Thr Asp Arg Cys Ser 120 Thr Met Cys Leu Leu Val Asn Leu Ala Leu Leu Tyr Pro Gly Ala Thr 130 135 140 Leu Phe Phe Gln 11e Ser Met Ser Leu Asp Val Ala Ser His Trp Leu 150 155 His Leu His Arg Ser Ala Ala Ile Leu Gly Ala Trp Ala Thr Trp Arg 165 170 His Tyr Ser Gly Val Gly 180 <210> 4952

<400> 575

<213> Homo sapiens

<211> 258 <212> PRT

Met Gly Thr Leu Thr Phe His Leu Lys Ser Ser Phe Pro Gln Val Leu

1 5 10 15

Arg His Val Asn Gly Gln Asp Gln 11e Val Pro Gly Leu Tyr Ala Cys

			20					25					30		
Gly	Glu	Ala	Ala	Cys	Ala	Ser	Val	His	Gly	Ala	Asn	Arg	Leu	Gly	Ala
		35					40					45			
Asn	Ser	Leu	Leu	Asp	Leu	Val	Ala	Phe	Gly	Arg	Ala	Cys	Ala	Pro	Ser
	50					55					60				
lle	Glu	Glu	Ser	Cys	Arg	Pro	Gly	Asp	Lys	Val	Pro	Pro	Ile	Lys	Pro
65					70					75					80
Asn	Ala	Gly	Glu	Glu	Ser	Val	Met	Asn	Leu	Asp	Lys	Leu	Arg	Phe	Ala
				85					90					95	
Asp	Gly	Ser	He	Arg	Thr	Ser	Glu	Leu	Arg	Leu	Ser	Met	Gln	Lys	Ser
			100					105					110		
Met	Gln	Asn	His	Ala	Ala	Val	Phe	Arg	Val	Gly	Ser	Val	Leu	Gln	Glu
		115					120					125			
Gly	Cys	Gly	Lys	lle	Ser	Lys	Leu	Tyr	Gly	Asp	Leu	Lys	His	Leu	Lys
	130					135					140				
Thr	Phe	Asp	Arg	Gly	Met	Val	Trp	Asn	Thr	Asp	Leu	Val	Glu	Thr	Leu
145					150					155					160
Glu	Leu	Gln	Asn	Leu	Met	Leu	Cys	Ala	Leu	Gln	Thr	He	Tyr	Gly	Ala
				165					170					175	
Glu	Ala	Arg	Lys	Glu	Ser	Arg	Gly	Ala	His	Ala	Arg	Glu	Asp	Tyr	Lys
			180					185					190		
Val	Arg	He	Asp	Glu	Tyr	Asp	Tyr	Ser	Lys	Pro	lle	Gln	Gly	Gln	Gln
		195					200					205			
Lys	Lys	Pro	Phe	Glu	Glu	His	Trp	Arg	Lys	His	Thr	Leu	Ser	Tyr	Val
	210					215					220				
Asp	Val	Gly	Thr	Gly	Lys	Val	Thr	Leu	Glu	Tyr	Arg	Pro	Val	He	Asp
225					230					235					240
Lys	Thr	Leu	Asn	Glu	Ala	Asp	Cys	Ala	Thr	Val	Pro	Pro	Ala	lle	Arg
				245					250					255	
Ser	Tyr														

<211> 149

<212> PRT

<213> Homo sapiens

<400> 576

Met Tyr Met Glu Pro Ser Ala Arg Ser Ala Gly Tyr Ser Pro Gln Gln

1 5 10 15

Lys Arg Leu Ser Lys Thr Arg 11e Pro Arg Leu Gl<br/>n Ser Leu Thr Asp  $20 \hspace{1.5cm} 25 \hspace{1.5cm} 30$ 

Gln Ala Ala Leu Trp Gly Thr Thr Cys Asp Gln Val Asn Ala Lys Gln 35 40 45

Gly Pro Lys Pro Ser Pro Gly His Arg Leu Arg Arg Asn Leu Pro Gly 50 55 60

Glu Lys Trp Glu Ile Asp Phe Thr Lys Val Lys Pro His Gln Ala Gly
65 70 75 80

Tyr Lys Tyr Leu Leu Val Leu Val Asp Thr Phe Ser Gly Trp Thr Glu

85 90 95

Ala Phe Ala Thr Lys Asn Glu Thr Ala Asn Leu Val Val Lys Phe Leu 100 105 110

Leu Asn Glu Ile Ile Pro Arg Tyr Gly Leu Pro Ala Ala Ile Gly Ser 115 120 125

Asp Asn Gly Pro Ala Phe Thr Ser Ser 11e Val Leu Ser Val Ser Lys 130 135 140

Ala Leu Asn Ile Gln

145

<210> 4954

<211> 602

<212> PRT

<213> Homo sapiens

<400> 577

Met Glu Ser Gln Ala Thr Ser Ala Ser Ile Asn Asn Ser Asn Pro Ser

1 5 10 15

Thr Ser Glu Gln Ala Ser Asp Thr Ala Ser Ala Val Thr Ser Ser Gln 20 25 30

Pro Ser Thr Val Ser Glu Thr Ser Ala Thr Leu Thr Ser Asn Ser Thr

		35					40					45			
Thr	Gly	Thr	Ser	He	Gly	Asp	Asp	Ser	Arg	Arg	Thr	Thr	Ser	Ser	Ala
	50					55					60				
Val	Thr	Glu	Thr	Gly	Pro	Pro	Ala	Met	Pro	Arg	Leu	Pro	Ser	Cys	Cys
65					70					75					80
Pro	Gln	His	Ser	Pro	Cys	Gly	Gly	Ser	Ser	Gln	Asn	His	His	Ala	Leu
				85					90					95	
Gly	His	Pro	His	Thr	Ser	Cys	Phe	Gln	Gln	His	Gly	His	His	Phe	Gln
			100					105					110		
His	His	His	His	His	His	His	Thr	Pro	His	Pro	Ala	Val	Pro	Val	Ser
		115					120					125			
Pro	Ser	Phe	Ser	Asp	Pro	Ala	Cys	Pro	Val	Glu	Arg	Pro	Pro	Gln	Val
	130					135					140				•
Gln	Ala	Pro	Cys	Gly	Ala	Asn	Ser	Ser	Ser	Gly	Thr	Ser	Tyr	His	Glu
145					150					155					160
Gln	Gln	Ala	Leu	Pro	Val	Asp	Leu	Ser	Asn	Ser	Gly	lle	Arg	Ser	His
				165					170					175	
Gly	Ser	Gly		Phe	His	Gly	Ala		Ala	Phe	Asp	Pro		Cys	Pro
			180					185					190		
Val	Ser		Ser	Arg	Ala	Ala		Phe	Gly	His	Gln		Ala	Ala	Ala
	D	195	0.1				200			61	<b>m</b>	205			
Ala		Ser	GIn	Pro	Leu	Ser	Ser	He	Asp	GIy		GIy	Ser	Ser	Met
V. 1	210	C1	D	C1	D	215	D	D	D	C1	220 D	C		C	C
	Ala	GIN	Pro	GIN		Gln	rro	rro	Pro		Pro	ser	Leu	ser	
225 Cvs	Λισσ	Hic	Tyr	Mot	230 Pro	Pro	Pro	Tur	A10	235 Sor	Lou	The	Λκα	Pro	240
Cys	nı g	1115	ryı	245		110	110	1 y 1	250		Leu	1111	nı g	255	Leu
His	His	Gln	Ala			Cys	Pro	His			Glv	Asn	Pro		Pro
111.5	5	0111	260	501	7110	0,5	110	265	501	11.15	01,	11311	270	110	.10
Gln	Thr	Gln		Pro	Pro	Gln	Val		Tvr	Val	He	Pro		Pro	Val
		275					280		•			285			
His	Ala		His	Ser	Gln	He		Ser	His	Ala	Thr		His	Pro	Val
	290					295					300				
Ala		Pro	Pro	Pro	Thr	llis	Leu	Ala	Ser	Thr		Ala	Pro	lle	Pro
305					310					315					320
	Hie	Leu	Pro	Pro	Thr	His	Gln	Pro	116	Ser	Hie	Hic	Tle	Pro	Ala

				325					330					335	
Thr	Ala	Pro	Pro	Ala	Gln	Arg	Leu	His	Pro	His	Glu	Val	Met	Gln	Arg
			340					345					350		
Met	Glu	Val	Gln	Arg	Arg	Arg	Met	Met	Gln	His	Pro	Thr	Gly	Leu	Phe
		355					360					365			
Val	Phe	Cys	Val	Ser	Arg	Arg	Ala	His	Glu	Arg	Pro	Pro	Pro	His	Pro
	370					375					380				
His	Arg	Met	His	Pro	Asn	Tyr	Gly	His	Gly	His	His	lle	His	Val	Pro
385					390					395					400
Gln	Thr	Met	Ser	Ser	His	Pro	Arg	Gln	Ala	Pro	Glu	Arg	Ser	Ala	Trp
				405					410					415	
Glu	Leu	Gly	lle	Glu	Ala	Gly	Val	Thr	Ala	Ala	Thr	Tyr	Thr	Pro	Gly
			420					425					430		
Ala	Leu	His	Pro	His	Leu	Ala	His	Tyr	His	Ala	Pro	Pro	Arg	Leu	His
		435					440					445			
His	Leu	Gln	Leu	Gly	Ala	Leu	Pro	Leu	Met	Val	Pro	Asp	Met	Ala	Gly
	450					455					460				
Tyr	Pro	His	Ile	Arg	Tyr	lle	Ser	Ser	Gly	Leu	Asp	Gly	Thr	Ser	Phe
465					470					475					480
Arg	Gly	Pro	Phe	Arg	Gly	Asn	Phe	Glu	Glu	Leu	lle	His	Leu	Glu	Glu
				485					490					495	
Arg	Leu	Gly	Asn	Val	Asn	Arg	Gly	Ala	Ser	Gln	Gly	Thr	He	Glu	Arg
			500					505					510		
Cys	Thr	Tyr	Pro	His	Lys	Tyr	Lys	Lys	Val	Thr	Thr	Asp	Trp	Phe	Ser
		515					520					525			
Gln	Arg	Lys	Leu	His	Cys	Lys	Gln	Asp	Gly	Glu	Glu	Gly	Thr	Glu	Glu
	530					535					540				
Asp	Thr	Glu	Glu	Lys	Cys	Thr	lle	Cys	Leu	Ser	He	Leu	Glu	Glu	Gly
545					550					555					560
Glu	Asp	Val	Arg	Arg	Leu	Pro	Cys	Met	His	Leu	Phe	His	Gln	Val	Cys
				565					570					575	
Va]	Asp	Gln	Trp	Leu	lle	Thr	Asn	Lys	Lys	Cys	Pro	Пе	Cys	Arg	Val
			580					585					590		
Asp	He	Glu	Ala	Gln	Leu	Pro	Ser	Glu	Ser						
		595					600								

<211> 116 <212> PRT <213> Homo sapiens <400> 578 Met Val Ser Gly Met Gly Met Gly Asn Arg Asp Thr Asn Pro Asn Gly 1 10 15 Lys Pro Leu Ala Lys Gln Pro Pro Glu Phe Val Leu 11e Val Tyr Ser 25 GIn Ser Leu Ala Thr Ala His Thr Leu Phe Phe Ser Tyr Lys Gln Lys 40 45 Glu Leu Ser Leu Ser Ala Met Asn Pro Ala Ile Pro Arg Lys Lys Ala 50 55 Asn Ala Leu Ala Ser Ser Pro Val Arg Ala Thr His Ser Ile Ser Thr 70 75 Phe Cys Met Leu Lys Leu Cys His Arg Arg Arg Ala Ser Ala His Asp 85 90 Gln Phe Phe Phe Trp Ser lle Gly Ser Phe Cys Leu Arg Ile Phe Val 100 105 110 Cys Val Tyr Leu 115 <210> 4956 <211> 376 <212> PRT <213> Homo sapiens <400> 579 Met Ala Asp Ser Arg Arg Val Ile Ile Ala Ser Trp Tyr Arg Thr Phe 10 Met Gly Ile Val Asn Leu Phe Gly Leu Glu Thr Lys Thr Cys Trp Asn

25

Val Thr Arg Ile Glu Pro Leu Asn Glu Val Gln Ser Cys Glu Gly Leu

30

20

<210> 4955

		35					40					45			
Arg	Asp	Pro	Ala	Cys	Phe	Tyr	Val	G1 y	Val	lle	Phe	Ile	Leu	Asn	Gly
	50					55					60				
Leu	Met	Met	Gly	Leu	Phe	Phe	He	Tyr	Gly	Thr	Tyr	Leu	Ser	G1 y	Thr
65					70					75					80
Glu	Leu	Gly	Gly	Leu	He	Thr	Val	Leu	Cys	Phe	Phe	Phe	Asn	His	Gly
				85					90					95	
Glu	Ala	Thr	Cys	Val	Met	Trp	Thr	Pro	Pro	Leu	Arg	Glu	Ser	Phe	Ser
			100					105					110		
Tyr	Pro	Phe	Leu	Val	Leu	Gln	Met	Tyr	Val	Leu	Thr	Leu	Ile	Leu	Arg
		115					120					125			
Thr	Ser	Ser	Asn	Asp	Arg	Arg	Pro	Phe	lle	Ala	Leu	Cys	Leu	Ser	Asn
	130					135					140				
Val	Ala	Phe	Met	Leu	Pro	Trp	Gln	Phe	Ala	G1n	Phe	He	Leu	Phe	Thr
145					150					155					160
Gln	He	Ala	Ser	Leu	Phe	Pro	Met	Tyr	Va]	Val	Gly	Tyr	He	Glu	Pro
				165					170					175	
Ser	Lys	Phe	Gln	Lys	He	He	Tyr	Met	Asn	Met	Ile	Ser	Val	Thr	Leu
			180					185					190		
Ser	Phe	lle	Leu	Met	Phe	Gly	Asn	Ser	Met	Tyr	Leu	Ser	Ser	Tyr	Tyr
		195					200					205			
Ser	Ser	Ser	Leu	Leu	Met	Thr	Trp	Ala	He	lle	Leu	Lys	Arg	Asn	Glu
	210					215					220				
11e	Gln	Lys	Leu	Gly	Val	Ser	Lys	Leu	Asn	Cys	Trp	Leu	He	Gln	Gly
225					230					235					240
Ser	Ala	Trp	Trp	Cys	Gly	Thr	lle	11e	Leu	Lys	Phe	Leu	Thr	Ser	Lys
				245					250					255	
He	Leu	Gly		Ser	Asp	His	11e	Cys	Leu	Ser	Asp	Leu	He	Ala	Ala
			260					265				•	270		
G] y	Thr	Leu	Arg	Tyr	Thr	Asp		Asp	Thr	Leu	Lys		Thr	Cys	Ser
		275					280					285			
Pro		Phe	Asp	Phe	Met		Lys	Ala	Thr	Leu	Leu	He	Tyr	Thr	Lys
	290					295					300				
	Leu	Leu	Leu	Pro		Val	Met	Val	Пе		Cys	Phe	He	Phe	
305					310					315					320
Lys	Thr	Val	G] v	Asp	He	Ser	Arg	Val	Leu	Ala	Thr	Asn	Val	Tvr	Leu

 Arg
 Cys
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 Leu
 Cys
 Arg
 Cys
 His
 Ala
 Tyr
 Asn
 Gly
 Lys
 Cys
 Gln
 Ala

 Val
 Tyr
 Thr
 Ser
 Ser
 His
 Cys
 Glu
 Ser
 Ser
 Thr
 Leu
 Arg
 Cys
 Arg

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 Glu
 Ala
 Trp
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 Gln
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 Ala

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<210> 4957

<211> 109

<212> PRT

<213> Homo sapiens

<400> 580

Met Tyr Pro Ala Leu Leu Val Pro Ser Ser Ser Pro Ser Ser Val Phe

1 5 10 15

Gly Val Pro Glu Thr Gly Phe Ser Gln Trp Pro Gly Pro Gln Gly Asn
20 25 30

Cys Arg Val 11e Gl<br/>n Ser Gly Ser Ala Ser Leu Gl<br/>n Gly Pro Leu Pro \$35\$ \$40\$ \$45\$

Gly Arg Ala Ser Trp His Pro Ala 11e Gly Gly Pro Asp Thr Pro Ala 50 55 60

Arg Asp Pro Ala Thr Gln Glu Val Pro Thr Pro Ser Gln Ser Asp Pro
65 70 75 80

Gly Pro Arg Ala Asp Arg Ser Pro Pro Leu Lys Arg Leu Leu Pro Leu 85 90 95

Tyr Pro Thr Pro Arg Asp Ser Phe His Ser Gly 11e Ser 100 105

<210> 4958

<211> 363

<212> PRT

<213> Homo sapiens

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Met	Pro	Val	Arg	Thr	Leu	Phe	Pro	Glu	Ser	Trp	Leu	Trp	Arg	Lys	Phe
1				5					10					15	
Thr	Leu	Pro	Lys	Ser	Lys	Ser	Gly	Пe	Ser	His	Tyr	Pro	He	Ser	Val
			20					25					30		
Lys	Val	Pro	Asp	Ser	He	Thr	Thr	Trp	Gln	Phe	Val	Va]	Val	Ser	Leu
		35					40					45			
Lys	Ala	Gly	Gln	Gly	Leu	Cys	Val	Ser	Asp	Pro	Phe	Glu	Leu	Thr	Val
	50					55					60				
Met	Lys	Ser	Phe	Phe	Val	Asp	Leu	Lys	Leu	Pro	Ser	Ser	Val	Ile	Arg
65					70					75					80
Asn	Glu	Gln	Val	Gln	lle	Gln	Ala	Met	Leu	Tyr	Asn	Phe	Arg	Asp	Arg
				85					90					95	
Gln	Ala	Lys	Val	Arg	Val	Glu	Phe	Pro	His	Lys	Glu	Thr	Leu	Cys	Ser
			100					105					110		
Ala	Ser	Lys	Pro	Gly	Ala	Pro	Ser	His	Gln	Ala	Gly	Val	Gln	Ile	Gln
		115					120					125			
Gln	Thr	Ser	Tyr	Ser	He	Val	Leu	Glu	Pro	Gln	Gly	Gln	Thr	Gln	Thr
	130					135					140				
Lys	Leu	Val	Pro	Arg	Gln	Glu	Phe	Leu	Asn	Met	Val	Pro	Asp	Thr	Glu
145					150					155					160
Ala	Glu	Val	Phe	He	Ser	Val	Gln	Gly	Tyr	Thr	Gln	Met	Leu	Thr	His
				165					170					175	
Arg	Ser	Ser	Asp	Gly	Thr	Tyr	His	Thr	Ser	Lys	Gly	Asn	Pro	Gly	Ser
			180					185					190		
Thr	Trp	Leu	Thr	Ser	Tyr	Val	Phe	Arg	Val	Phe	Ala	Leu	Ala	Tyr	Ser
		195					200					205			
Met	Met	Thr	Thr	Gln	Val	Leu	Ser	Leu	Ser	Ser	Leu	Cys	Asp	Met	Ala
	210					215					220				
Asn	Trp	He	He	He	Asp	Arg	GIn	Ala	Glu	Asp	Gly	His	Phe	Leu	Glu
225					230					235					240
Lys	Gly	Pro	Val	Val	Met	Thr	Ser	Met	Gln	Asp	Gly	Tyr	Gln	Gly	Ser
				245					250					255	
Glu	Glu	Asp	Val	Ser	Leu	Thr	Ala	Leu	Val	Leu	He	Ala	Leu	Asn	Glu
			260					265					270		

Gly Lys Glu Leu Cys Arg Gln Lys Asn Leu Met Ala Ser Ile Glu Arg Ala Arg Gly Phe Leu Glu Arg Lys Leu Pro Asp Ile Gln Thr Thr Phe Ala Val Ala Ile Ala Ser Tyr Ala Leu Ala Leu Ala Asn Ser Ser GIn Ala Asn Asp Cys Leu Asp Ser Phe Ala Ser Pro Ser Gly Cys Gly Met Leu Leu Asn Gln Pro Gln Ser Trp Ser Gly Glu Gly Val Ile Ser Asn Pro Ala Met Cys Tyr Ser Ser Leu Ser Val Ser 

<210> 4959

<211> 359

<212> PRT

<213> Homo sapiens

<400> 582

Met Pro Pro Thr Ser Ser Thr Pro Ser Leu Ser Arg Pro Gly Leu Gly Gln Ala Gly Lys Pro Asp Thr Gly Ser His Pro Pro Pro Thr 11e Ser Thr Ser Ile Phe Leu Ser Cys Phe Pro Thr Ile Pro Leu Ser Arg Pro Arg Thr Thr Gly Pro Ser His Ser Tyr Gln Ser Ile Ser His Pro Arg Ser Cys Arg Asp Val Pro Asp Asp Ile Gln Pro Ile Thr Ser Leu Pro Gly Val Ala Arg Tyr Gly Val Lys Arg Leu Glu Glu Met Leu Arg Pro Leu Val Glu Glu Gly Leu Arg Cys Val Leu Ile Phe Gly Val Pro Ser 

Arg Val Pro Lys Asp Glu Arg Gly Ser Ala Ala Asp Ser Glu Glu Ser

Pro	Ala	Ile	Glu	Ala	Ile	His	Leu	Leu	Arg	Lys	Thr	Phe	Pro	Asn	Leu
	130					135					140				
Leu	Val	Ala	Cys	Asp	Val	Cys	Leu	Cys	Pro	Tyr	Thr	Ser	His	Gly	His
145					150					155					160
Cys	Gly	Leu	Leu	Ser	Glu	Asn	Gly	Ala	Phe	Arg	Ala	Glu	Glu	Ser	Arg
				165					170					175	
Gln	Arg	Leu	Ala	Glu	Val	Ala	Leu	Ala	Tyr	Ala	Lys	Ala	G1 y	Cys	Gln
			180					185					190		
Val	Val	Ala	Pro	Ser	Asp	Met	Met	Asp	Gly	Arg	Val	Glu	Ala	He	Lys
		195					200					205			
Glu	Ala	Leu	Met	Ala	His	Gly	Leu	Gly	Asn	Arg	Val	Ser	Val	Met	Ser
	210					215					220				
Tyr	Ser	Ala	Lys	Phe	Ala	Ser	Cys	Phe	Tyr	Gly	Pro	Phe	Arg	Asp	Ala
225					230					235					240
Ala	Lys	Ser	Ser	Pro	Ala	Phe	Gly	Asp	Arg	Arg	Cys	Tyr	Gln	Leu	Pro
				245					250					255	
Pro	Gly	Ala	Arg	Gly	Leu	Ala	Leu	Arg	Ala	Val	Asp	Arg	Asp	Val	Arg
			260					265					270		
Glu	Gly	Ala	Asp	Met	Leu	Met	Val	Lys	Pro	Gly	Met	Leu	Tyr	Leu	Asp
		275					280					285			
Ile	Val	Arg	Glu	Val	Lys	Asp	Lys	His	Pro	Asp	Leu	Pro	Leu	Ala	Val
	290					295			,		300				
Tyr	His	Val	Ser	Gly	Glu	Phe	Ala	Met	Leu	Trp	His	Gly	Ala	Gln	Ala
305					310					315					320
Gly	Ala	Phe	Asp	Leu	Lys	Ala	Ala	Va]	Leu	Glu	Ala	Met	Thr	Ala	Phe
				325					330					335	
Arg	Arg	Ala	Gly	Ala	Asp	He	He	lle	Thr	Tyr	Tyr	Thr	Pro	Gln	Leu
			340					345					350		
Leu	Gln	Trp	Leu	Lys	Glu	Glu									
		355													

<211> 508

<212> PRT

<213> Homo sapiens

<400	)> 58	33													
Met	Met	Trp	Gly	Gly	Gly	Leu	Asp	Leu	Cys	Pro	Met	Pro	Gly	Gln	Leu
1				5					10					15	
Lys	Phe	Pro	Pro	Cys	Leu	Ser	Arg	Cys	Leu	Leu	Trp	Glu	Pro	Pro	Ser
			20					25					30		
Leu	Tyr	Leu	Thr	Gln	Pro	Thr	Ser	Ser	Leu	Ala	Glu	Pro	Gln	Ala	Leu
		35					40					45			
Ile	Cys	Met	Thr	Ser	Ser	Ser	Ser	Gly	Leu	Phe	Ile	Gln	Asp	Asp	Asn
	50					55					60				
Met	Glu	Lys	Leu	Glu	Glu	Ile	Ile	Glu	Lys	Tyr	Pro	Arg	Ala	Phe	Pro
65					70					75					80
Phe	Trp	He	Gly	Pro	Phe	Gln	Ala	Phe	Phe	Cys	He	Tyr	Asp	Pro	Asp
				85					90					95	
Tyr	Ala	Lys		Leu	Leu	Ser	Arg		Asp	Pro	Lys	Ser	Gln	Tyr	Leu
			100					105					110		
GIn	Lys		Ser	Pro	Pro	Leu		Gly	Lys	GIy	Leu		Ala	Leu	Asp
0.1	n	115	T.	DI	0.1		120		,		T)	125	C1	F31	
Gly		Lys	lrp	Phe	GIn		Arg	Arg	Leu	Leu		Pro	G1 y	Phe	His
Di	130	T1.	1	1	۸1	135	11.	C1	V - 1	Max	140	11: -	C - 34	V = 1	1
	ASI	116	Leu	Lys		lyr	116	GIU	vai		АТа	nis	Ser	vai	
145	Mot	Lou	Acn	Lyc	150	C1n	Lyc	110	Cvc	155 Sor	The	Gln	Asp	The	160
ME t	Met	Leu	лър	165	пр	Olu	rys	116	170	261	1111	OIII	nsh	175	Se1
Va1	Glu	Val	Tyr		His	lle	Asn	Ser		Ser	Len	Asn	lle		Met
, а 1	Olu	741	180	Olu	1113	110	ASH	185	MCC	561	LCu	пэр	190	, (1)	.,, C C
Lvs	Cvs	Ala		Ser	Lvs	Glu	Thr		Cvs	G1n	Thr	Asn	Ser	Thr	His
,	-,-	195			, -		200					205			
Asp	Pro	Tyr	Ala	Lys	Ala	lle	Phe	Glu	Leu	Ser	Lys	He	He	Phe	His
	210					215					220				
Arg	Leu	Tyr	Ser	Leu	Leu	Tyr	His	Ser	Asp	11e	11e	Phe	Lys	Leu	Ser
225					230					235					240
Pro	Gln	Gly	Tyr	Arg	Phe	Gln	Lys	Leu	Ser	Arg	Val	Leu	Asn	Gln	Tyr
				245					250					255	
Thr	Asp	Thr	11e	Ile	Gln	Glu	Arg	Lys	Lys	Ser	Leu	Gln	Ala	Gly	Val
			260					265					270		

Lys	Gln	Asp	Asn	Thr	Pro	Lys	Arg	Lys	Tyr	Gln	Asp	Phe	Leu	Asp	lle
		275					280	•				285			
Val	Leu	Ser	Ala	Lys	Asp	Glu	Ser	G1 y	Ser	Ser	Phe	Ser	Asp	He	Asp
	290					295					300				
Val	His	Ser	Glu	Val	Ser	Thr	Phe	Leu	Leu	Ala	Gly	His	Asp	Thr	Leu
305					310					315					320
Ala	Ala	Ser	He	Ser	Trp	11e	Leu	Týr	Cys	Leu	Ala	Leu	Asn	Pro	Glu
				325					330					335	
His	Gln	Glu	Arg	Cys	Arg	Glu	Glu	Val	Arg	Gly	Ile	Leu	G1 y	Asp	Gly
			340					345					350		
Ser	Ser	Ile	Thr	Trp	Asp	Gln	Leu	Gly	Glu	Met	Ser	Tyr	Thr	Thr	Met
		355					360					365			
Cys	He	Lys	Glu	Thr	Cys	Arg	Leu	Пe	Pro	Ala	Val	Pro	Ser	He	Ser
	370					375					380				
Arg	Asp	Leu	Ser	Lys	Pro	Leu	Thr	Phe	Pro	Asp	Gly	Cys	Thr	Leu	Pro
385					390					395					400
Ala	Gly	Ile	Thr	Val	Val	Leu	Ser	He	Trp	Gly	Leu	His	His	Asn	Pro
				405					410					415	
Ala	Val	Trp	Lys	Asn	Pro	Lys	Val	Phe	Asp	Pro	Leu	Arg	Phe	Ser	Gln
			420					425					430		
Glu	Asn	Ser	Asp	Gln	Arg	His	Pro	Tyr	Ala	Tyr	Leu	Pro	Phe	Ser	Ala
		435					440					445			
Gly	Ser	Arg	Asn	Cys	He	Gly	Gln	Glu	Phe	Ala	Met	lle	Glu	Leu	Lys
	450					455					460				
Val	Thr	Ile	Ala	Leu	Ile	Leu	Leu	His	Phe	Arg	Val	Thr	Pro	Asp	Pro
465					470					475					480
Thr	Arg	Pro	Leu	Thr	Phe	Pro	Asn	His	Phe	Ile	Leu	Lys	Pro	Lys	Asn
				485					490					495	
Gly	Met	Tyr	Leu	His	Leu	Lys	Lys	Leu	Ser	Glu	Cys				
			500					505							

<211> 1264

<212> PRT

<213> Homo sapiens

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Met	Cys	Lys	Lys	Leu	Thr	Lys	Leu	Ala	Lys	Glu	Asn	Asp	Ser	Met	Lys
1				5					10					15	
Glu	Glu	Leu	Leu	Lys	Tyr	Arg	Ser	Leu	Tyr	Gly	Asp	Leu	Asp	Ser	Ala
			20					25					30		
Leu	Ser	Ala	Glu	Glu	Leu	Ala	Asp	Ala	Pro	His	Ser	Arg	Glu	Thr	Glu
		35					40					45			
Leu	Lys	Val	His	Leu	Lys	Leu	Val	Glu	Glu	Glu	Ala	Asn	Leu	Leu	Ser
	50					55					60				
Arg	Arg	Ile	Val	Glu	Leu	Glu	Val	Glu	Asn	Arg	Gly	Leu	Arg	Ala	Glu
65					70					75					80
Met	Asp	Asp	Met	Lys	Asp	His	Gly	Gly	Gly	Cys	Gly	Gly	Pro	Glu	Ala
				85					90					95	
Arg	Leu	Ala	Phe	Ser	Ala	Leu	Gly	Gly	Gly	Glu	Cys	Gly	Glu	Ser	Leu
			100					105					110		
Ala	Glu		Arg	Arg	His	Leu		Phe	Val	Glu	Glu	Glu	Ala	Glu	Leu
		115					120					125			
Leu		Arg	Ser	Ser	Ala		Leu	Glu	Asp	Gln		Lys	Leu	Leu	Leu
_	130					135	_				140				
	Glu	Leu	Ala	Lys		Arg	Ser	Glu	His		Leu	Asp	Val	Ala	
145	0.1		0	0	150				0.1	155					160
Ser	61u	Asp	Ser		Ser	Val	Leu	Ser		Pro	Ser	GIn	Glu		Leu
A 1 -	41.	A 1	1	165	C1	т 1	C1	C1	170	0	0.1		., .	175	
АТа	нта	Ala		Leu	GIn	11e	61 y		Leu	Ser	ы	Lys	Val	Lys	Lys
Lou	Cln	Tur	180	Aan	A 22.00	Vol	1	185	Care	Λ	1	C1	190	C	
Leu	OIII	191 195	o j u	ASII	AJ g	val	200	Leu	ser	ASII	Leu	205	Arg	Cys	Asp
ىيم ا	Δla		Cvc	Gln	Sor	Thr		Pro	Mot	Lou	C1		Asp	110	C1
i,cu	210	501	Cys	OIII	561	215	MI B	110	Met	Leu	220	1111	nsp	MIA	Olu
Ala		Asn	Ser	Ala	Gln		Val	Pro	Ala	Pro		Glv	Glu	Thr	Hic
225	01;	пор	001		230	0,5	VG1	110	AT G	235	Lea	Oly	O I u	1111	240
	Ser	His	Ala	Val		Leu	Cvs	Arg	Ala		Glu	Ala	Glu	Val	
				245			~y 0	8	250	8	010	.114	Ju	255	20 U
Pro	Gly	Leu	Arg		Gln	Ala	Ala	Leu		Ser	Lvs	Ala	lle		Val
	•		260					265			- 3 =		270	r	

Leu	Val	Ala	Asp	Ala	Asn	Gly	Phe	Thr	Ala	Gly	Leu	Arg	Leu	Cys	Leu
		275					280					285			
Asp	Asn	Glu	Cys	Ala	Asp	Phe	Arg	Leu	His	Glu	Ala	Pro	Asp	Asn	Ser
	290					295					300				
Glu	Gly	Pro	Arg	Asp	Thr	Lys	Leu	He	His	Ala	He	Leu	Val	Arg	Leu
305					310					315					320
Ser	Val	Leu	Gln	Gln	Glu	Leu	Asn	Ala	Phe	Thr	Arg	Lys	Ala	Asp	Ala
				325					330					335	
Val	Leu	Gly	Cys	Ser	Val	Lys	Glu	Gln	Gln	Glu	Ser	Phe	Ser	Ser	Leu
			340					345					350		
Pro	Pro	Leu	Gly	Ser	Gln	Gly	Leu	Ser	Lys	Glu	lle	Leu	Leu	Ala	Lys
		355					360					365			
Asp	Leu	Gly	Ser	Asp	Phe	Gln	Pro	Pro	Asp	Phe	Arg	Asp	Leu	Pro	Glu
	370					375					380				
Trp	Glu	Pro	Arg	lle	Arg	Glu	Ala	Phe	Arg	Thr	Gly	Asp	Leu	Asp	Ser
385					390					395					400
Lys	Pro	Asp	Pro	Ser	Arg	Ser	Phe	Arg	Pro	Tyr	Arg	Ala	Glu	Asp	Asn
				405					410					415	
Asp	Ser	Tyr	Ala	Ser	Glu	Ile	Lys	Glu	Leu	Gln	Leu	Val	Leu	Ala	Glu
			420					425					430		
Ala	His	Asp	Ser	Leu	Arg	Gly	Leu	Gln	Glu	Gln	Leu	Ser	Gln	Glu	Arg
		435					440					445			
Gln		Arg	Lys	Glu	Glu	Ala	Asp	Asn	Phe	Asn	Gln	Lys	Met	Val	Gln
	450					455					460				
	Lys	Glu	Asp	Gln		Arg	Ala	Leu	Leu	Arg	Arg	Glu	Phe	Glu	
465	_				470					475					480
Gln,	Ser	Leu	Ser		GIn	Arg	Arg	Leu		Gln	Lys	Phe	Trp		Gln
	_			485					490					495	
Glu	Lys	Asn		Leu	Val	Gln	Glu		Gln	Gln	Phe	Lys		Asn	Phe
			500		_			505		_			510		
Leu	Leu		Phe	Met	Lys	Leu	Arg	Trp	Phe	Leu	Lys		Trp	Arg	Gln
0.1		515		••	_		520					525			
Gly		Val	Leu	Pro	Ser		Gly	Asp	Asp	Phe		GIu	Val	Asn	Ser
M. ·	530	17 7		T		535	14	0.1	0.1	0.1	540				<b>0.7</b>
wet	LVS	val	Leu	IVr	Leu	Leu	Met	GTU	Glu	Glu	GIU	He	Asn	Ala	GIn

545	5				550	)				555	5				560
His	s Ser	: Ası	o Asr	ı Lys	s Ala	Cys	Thr	Gly	Asp	Ser	Trp	Thr	Gln	Asn	Thr
				565					570					575	
Pro	Asr	ı Glı	л Туз	· 11e	e Lys	Thr	Leu	ı Ala	Asp	Met	Lys	Val	Thr	Leu	Lys
			580					585					590		•
Glu	Leu	ı Cys	s Trp	Leu	ı Leu	Arg	, Asp	Glu	Arg	g Arg	Gly	Leu			Leu
		595					600				•	605			
Gln	Gln	Glr	Phe	e Ala	Lys	Ala	Lys	Ala	Thr	Trp	Glu			Arg	Ala
	610					615				•	620			6	
Glu	Leu	Lys	Gly	His	Thr			Met	Glu	Leu			Glv	Lvs	Gly
625					630					635			,	2,2	640
Ala	Gly	Glu	Arg	Ala	Gly	Pro	Asp	Trp	Lvs			Leu	Gln	Arg	
				645			•	•	650					655	010
Arg	Glu	Glu	Gln	Gln	His	Leu	Leu	Ala	Glu	Ser	Tvr	Ser	Ala		Met
			660					665			- , -		670	, 01	o c
Glu	Leu	Thr	Arg	Gln	Leu	Gln	He		Glu	Arg	Asn	Tro		Gln	GIu
		675					680			Ö		685		~	0
Lys	Leu	Gln	Leu	Val	Glu	Arg		Gln	Gly	Glu	Lvs		Gln	Val	Glu
	690					695			·		700				
Gln	Gln	Val	Lys	Glu	Leu	Gln	Asn	Arg	Leu	Ser	Gln	Leu	Gln	Lvs	Ala
705					710					715				_,-	720
Ala	Asp	Pro	Trp	Va]	Leu	Lys	His	Ser	Glu	Leu	Glu	Lvs	Gln	Asp	
				725					730			·		735	
Ser	Trp	Lys	Glu	Thr	Arg	Ser	Glu	Lys	He	His	Asp	Lys	Glu	Ala	Val
			740					745					750		
Ser	Glu	Val	Glu	Leu	Gly	G1 y	Asn	G1 y	Leu	Lys	Arg	Thr		Ser	Val
		755					760					765			
Ser	Ser	Met	Ser	Glu	Phe	Glu	Ser	Leu	Leu	Asp	Cys	Ser	Pro	Tyr	Leu
	770					775					780				
Ala	Gly	Gly	Asp	Ala	Arg	Gly	Lys	Lys	Leu	Pro	Asn	Asn	Pro	Ala	Phe
785					790					795					800
Gly	Phe	Va]	Ser	Ser	Glu	Pro	Gly	Asp	Pro	Glu	Lys	Asp	Thr	Lys	
				805					810					815	
Lys	Pro	Gly	Leu	Ser	Ser	Arg	Asp	Cys	Asn	His	Leu	Gly	Ala	Leu	Ala
			820					825					830		
Cys	Gln	Asp	Pro	Pro	Gly	Arg	Gln	Met	Gln	Arg	Ser	Tvr	Thr	Ala	Pro

		835					840					845			
Asp	Lys	Thr	Gly	He	Arg	Val	Tyr	Tyr	Ser	Pro	Pro	Val	Ala	Arg	Arg
	850					855					860				
Leu	G] y	Val	Pro	Val	Va]	His	Asp	Lys	Glu	Gly	Lys	He	He	11e	Glu
865					870					875					880
Pro	Gly	Phe	Leu	Phe	Thr	Thr	Ala	Lys	Pro	Lys	Glu	Ser	Ala	Glu	Ala
				885					890					895	
Asp	Gly	Leu	Ala	Glu	Ser	Ser	Tyr	Gly	Arg	Trp	Leu	Cys	Asn	Phe	Ser
			900					90/5					910		
Arg	Gln	Arg	Leu	Asp	Gly	Gly	Ser	Ala	Gly	Ser	Pro	Ser	Ala	Ala	Gly
		915					920					925			
Pro	61y	Phe	Pro	Ala	Ala	Leu	His	Asp	Phe	Glu	Met	Ser	Gly	Asn	Met
	930					935					940				
Ser	Asp	Asp	Met	Lys	Glu	Пе	Thr	Asn	Cys	Val	Arg	Gln	Ala	Met	Arg
945					950					955					960
Ser	G1y	Ser	Leu	Glu	Arg	Lys	Val	Lys	Ser	Thr	Ser	Ser	Gln	Thr	Val
				965					970					975	
Gly	Leu	Ala	Ser	Val	Gly	Thr	Gln	Thr	Ile	Arg	Thr	Val	Ser	Val	Gly
			980					985					990		
Leu	Gln	Thr	Asp	Pro	Pro	Arg	Ser	Ser	Leu	His	Gly	Lys	Ala	Trp	Ser
		995					1000					1005			
Pro	Arg	Ser	Ser	Ser	Leu	Val	Ser	Va]	Arg	Ser	Lys	Gln	He	Ser	Ser
]	1010				-	1015				-	1020				
Ser	Leu	Asp	Lys	Val	His	Ser	Arg	He	Glu	Arg	Pro	Cys	Cys	Ser	Pro
1025	5			-	030				-	1035				]	1040
Lys	Tyr	Gly	Ser	Pro	Lys	Leu	Gln	Arg	Arg	Ser	Val	Ser	Lys	Leu	Asp
			]	1045					1050					1055	
Ser	Ser	Lys	Asp	Arg	Ser	Leu	Trp	Asn	Leu	His	Gln	Gly	Lys	Gln	Asn
			1060					1065					1070		
Gly	Ser	Ala	Trp	Ala	Arg	Ser	Thr	Thr	Thr	Arg	Asp	Ser	Pro	Val	Leu
		1075					1080					1085			
Arg	Asn	He	Asn	Asp	G] y	Leu	Ser	Ser	Leu	Phe	Ser	Val	Val	Glu	His
	1090					1095					1100				
		Ser	Thr			Val	Trp	Lys	Leu	Gly	Met	Ser	Glu	Thr	Arg
1105					110					1115					1120
A 1 a	Lvc	Dro	C1u	Droc	Dro	1 200	Tur	C1v	11~	$V_{0}1$	C1 5	C1	Dho	Dho	Ana

Asn Ala Cys Gly Arg Ala Pro Ser Pro Thr Ser Ser Ala Gly Glu Glu Gly Thr Lys Lys Pro Glu Pro Leu Ser Pro Ala Ser Tyr His Gln Pro Glu Gly Val Ala Arg lle Leu Asn Lys Lys Ala Ala Lys Leu Gly Ser Ser Glu Glu Val Arg Leu Thr Met Leu Pro Gln Val Gly Lys Asp Gly Val Leu Arg Asp Gly Asp Gly Ala Val Leu Pro Asn Glu Asp Ala Val Cys Asp Cys Ser Thr Gln Ser Leu Thr Ser Cys Phe Ala Arg Ser Ser Arg Ser Ala Ile Arg His Ser Pro Ser Lys Cys Arg Leu His Pro Ser Glu Ser Ser Trp Gly Gly Glu Glu Arg Ala Leu Pro Pro Ser Glu 

<210> 4962

<211> 633

<212> PRT

<213> Homo sapiens

<400> 585

Cys	Val	Pro	His	Pro	Ser	Lys	Pro	Asn	His	Thr	Leu	Val	Leu	Leu
			85					90					95	
Thr	Glu	Gly	Leu	Gly	Asp	Val	Glu	Lys	G1 y	Asp	Pro	Lys	Asn	Asp
		100					105					110		
Trp	He	Phe	Ala	Leu	Ala	Val	Leu	Leu	Cys	Ser	Thr	Phe	Val	Tyr
	115					120					125			
Ser	Met	Ser	Thr	He	Asn	His	Gln	Ala	Leu	Glu	Gln	Leu	His	Tyr
130					135					140				
Thr	Glu	Leu	Thr	Glu	Leu	He	Lys	Ala	Lys	Ser	Ser	Pro	Arg	Pro
				150					155					160
Gly	Val	Glu	Asp	Ser	Thr	Glu	Phe	Val	Ser	Phe	Phe	Pro	Asp	Phe
			165					170					175	
Trp	Thr	Val	Arg	Asp	Phe	Thr	Leu	Glu	Leu	Lys	Leu	Asn	Gly	His
		180					185					190		
He	Thr	G]u	Asp	Glu	Tyr	Leu	Glu	Asn	Ala	Leu	Lys	Leu	He	Gln
	195					200					205			
	Asn	Pro	Arg	Val		Thr	Ser	Asn	Phe	Pro	Arg	Glu	Cys	lle
										220				
Arg	Phe	Phe	Pro		Arg	Lys	Cys	Phe		Phe	Asp	Arg	Pro	
														240
Asp	Lys	Asp		Leu	Ala	Asn	He		Lys	Val	Ser	Glu		GIn
	Б	,		0.1			<i>-</i>							
Asp	Pro		Phe	GIn	Glu	GIn		Asn	He	Phe	Cys		Tyr	He
TI	11.			T)	•	m.			0.1					
Ihr		Ala	Arg	lhr	Lys		Leu	Arg	Glu	Gly		Thr	Val	Thr
Α		1	C1	TI			12 1	TI	т	17 1				
	Arg	Leu	GIY			на	vai	ınr	ıyr		61u	Ala	He	Asn
	110	Vo.1	Duo			C1	Λ	A 1 -	17 - 1		TI		A 7	C1
UIŸ	мта	vai	rro		Leu	61 <b>u</b>	ASN	Ala		11e	ınr	Leu	Ala	
Glu	Acn	Sor	Alo		Vol	Cln	A 22.00	A 1 a		۸	Т	Т	C	320
Oju	Man	361		піа	vai	OIII	Λig		мта	ASP	Iyr	1 y 1.		61n
Met	Ala	Gln		Val	Lvc	Lou	Pro		Acn	The	Lou	Cln		Lau
me t	111 CI		шБ	• (11	rio	Leu		1111	ush	1111	Leu		o i u	reu
Asp	Met		Ala	Ala	Cvs	Glu		Glu	Ala	Ha	Ala		Pho	Mot
	355				<b>0</b> ,0	360	.11 5	JIU	111 CI	116	365	116	1110	me t
	Thr Trp Ser 130 Thr Gly Trp Ile Asn 210 Arg Asp Cly Glu Met	Thr Glu Trp Ile 115 Ser Met 130 Thr Glu Gly Val Trp Thr Ile Thr 195 Asn Asn 210 Arg Phe Asp Lys Asp Pro Thr His 275 Asn Arg 290 Gly Ala Glu Asn Met Ala	Thr Glu Gly 100 Trp 11e Phe 115 Ser Met Ser 130 Thr Glu Leu Gly Val Glu Trp Thr Val 180 Ile Thr Glu 195 Asn Asn Pro 210 Arg Phe Phe Asp Lys Asp Asp Lys Asp Asp Asp Lys 260 Thr His Ala 275 Asn Arg Leu 290 Gly Ala Val Glu Asn Ser Met Ala Gln 340 Asp Met His	Thr       Glu       Gly       Leu         Trp       11e       Phe       Ala         115       -       Thr         Ser       Met       Ser       Thr         130       -       Thr         Thr       Glu       Leu       Thr         Gly       Val       Asp       165         Trp       Thr       Glu       Asp         195       -       Arg         210       -       Arg         Asn       Pro       Arg         210       -       245         Asp       Leu       245         Asp       Pro       Leu         220       -       260         Thr       His       Ala       Arg         275       -       -         Asn       Arg       Leu       Gly         Asn       Arg <t< td=""><td>Thr       Glu       Gly       Leu       Gly         Trp       11e       Phe       Ala       Leu         Trp       Met       Phe       Ala       Leu         115       -       -       -         Ser       Met       Ser       Thr       Ile         130       -       -       150         Gly       Val       Asp       Ser         165       180       Asp       Asp         11e       Thr       Glu       Asp       Asp         11e       Thr       Glu       Asp       Glu         180       -       -       165         180       -       -       165         180       -       -       -         195       -       -       -         195       -       -       -         195       -       -       -         196       Phe       Pro       Lys         199       -       -       -         199       -       -       -         199       -       -       -         199       -       -       -</td><td>Thr       Glu       Gly       Leu       Gly       Asp         Trp       11e       Phe       Ala       Leu       Ala         Trp       11e       Phe       Ala       Leu       Ala         Ser       Met       Ser       Thr       11e       Asn         130       Ju       Leu       150       Leu         137       Thr       Glu       Asp       Ser       Thr         Gly       Val       Glu       Asp       Ser       Thr         11e       Thr       Val       Arg       Asp       Phe         11e       Thr       Glu       Asp       Glu       Tyr         11e       Thr       Glu       Asp       Glu       Tyr         12e       Thr       Glu       Asp       Glu       Tyr         12e       Thr       Glu       Asp       Glu       Ala         12e       Thr       Lys       Arg       Lys       Arg         12e       Thr       Lys       Phe       Glu       Lys         12e       Thr       Lys       Lys       Lys         12e       Thr       Lys       Ly</td><td>Thr       Glu       Gly       Leu       Gly       Asp       Val         Trp       11e       Phe       A1a       Leu       A1a       Val         Trp       11e       Phe       A1a       Leu       A1a       Val         Ser       Met       Ser       Thr       11e       Asp       His         130       Leu       Thr       11e       Asp       Leu       11e         130       Leu       Thr       150       Leu       11e         14m       Glu       Asp       Ser       Thr       Glu         15m       Har       Asp       Ser       Thr       Glu         14m       18m       Asp       Ser       Thr       Glu         15m       18m       Asp       Ser       Thr       Glu         15m       18m       Asp       Glu       Tyr       Leu         15m       19m       Asp       Glu       Tyr       Leu         15m       19m       Asp       Glu       Asp       Lys       Inr         15m       19m       19m       Asp       Inr       Lys       Inr         15m</td><td>Thr       Glu       Glu       Leu       Glu       Asp       Val       Glu         Trp       11e       Phe       Ala       Leu       Ala       Val       105         Trp       11e       Phe       Ala       Leu       Ala       Val       Leu         Ser       Met       Ser       Thr       Ile       Asp       His       Gln         130       Leu       Thr       Glu       Leu       Ile       Lys         Thr       Glu       Leu       Thr       Glu       Leu       Ile       Lys         Gly       Val       Glu       Asp       Ser       Thr       Glu       Phe       Phe       Ile       I</td><td>The file of the section of t</td><td>The         Glu         Gly         Leu         Gly         Asp         Val         Glu         Lys         Gly           The         11e         Phe         Ala         Leu         Val         Leu         Leu         Cys           The         11e         Phe         Ala         Leu         Val         Leu         Cys           Ser         Met         Fhe         Thr         Ile         Asp         His         Glu         Ala           Ser         Met         Ser         Thr         Glu         Ile         Ile         Ala         Lys         Ala         Lys         Ala         Lys         Ala         Lys         Ala         Lys         Ala         Lys         Ile         Ile</td><td>Thr         Glu         Gly         Leu         Gly         Asp         Val         Glu         Lys         Gly         Asp           Thr         11e         Par         Ala         Leu         Ala         Leu         Leu         Leu         Cly         Ser           Thr         11e         Leu         Ala         His         Glu         Ala         Leu         Leu         Leu         Glu           Ser         Met         Ser         Thr         11e         Leu         His         Leu         Ala         Ila         Ila</td><td>The         Glu         Elu         Elu         Glu         Asp         Val         Glu         Lys         Gly         Asp         Product           Try         10e         Pero         100&lt;</td><td>  The   Glu   Glu</td><td>The Incise of the Inc</td></t<>	Thr       Glu       Gly       Leu       Gly         Trp       11e       Phe       Ala       Leu         Trp       Met       Phe       Ala       Leu         115       -       -       -         Ser       Met       Ser       Thr       Ile         130       -       -       150         Gly       Val       Asp       Ser         165       180       Asp       Asp         11e       Thr       Glu       Asp       Asp         11e       Thr       Glu       Asp       Glu         180       -       -       165         180       -       -       165         180       -       -       -         195       -       -       -         195       -       -       -         195       -       -       -         196       Phe       Pro       Lys         199       -       -       -         199       -       -       -         199       -       -       -         199       -       -       -	Thr       Glu       Gly       Leu       Gly       Asp         Trp       11e       Phe       Ala       Leu       Ala         Trp       11e       Phe       Ala       Leu       Ala         Ser       Met       Ser       Thr       11e       Asn         130       Ju       Leu       150       Leu         137       Thr       Glu       Asp       Ser       Thr         Gly       Val       Glu       Asp       Ser       Thr         11e       Thr       Val       Arg       Asp       Phe         11e       Thr       Glu       Asp       Glu       Tyr         11e       Thr       Glu       Asp       Glu       Tyr         12e       Thr       Glu       Asp       Glu       Tyr         12e       Thr       Glu       Asp       Glu       Ala         12e       Thr       Lys       Arg       Lys       Arg         12e       Thr       Lys       Phe       Glu       Lys         12e       Thr       Lys       Lys       Lys         12e       Thr       Lys       Ly	Thr       Glu       Gly       Leu       Gly       Asp       Val         Trp       11e       Phe       A1a       Leu       A1a       Val         Trp       11e       Phe       A1a       Leu       A1a       Val         Ser       Met       Ser       Thr       11e       Asp       His         130       Leu       Thr       11e       Asp       Leu       11e         130       Leu       Thr       150       Leu       11e         14m       Glu       Asp       Ser       Thr       Glu         15m       Har       Asp       Ser       Thr       Glu         14m       18m       Asp       Ser       Thr       Glu         15m       18m       Asp       Ser       Thr       Glu         15m       18m       Asp       Glu       Tyr       Leu         15m       19m       Asp       Glu       Tyr       Leu         15m       19m       Asp       Glu       Asp       Lys       Inr         15m       19m       19m       Asp       Inr       Lys       Inr         15m	Thr       Glu       Glu       Leu       Glu       Asp       Val       Glu         Trp       11e       Phe       Ala       Leu       Ala       Val       105         Trp       11e       Phe       Ala       Leu       Ala       Val       Leu         Ser       Met       Ser       Thr       Ile       Asp       His       Gln         130       Leu       Thr       Glu       Leu       Ile       Lys         Thr       Glu       Leu       Thr       Glu       Leu       Ile       Lys         Gly       Val       Glu       Asp       Ser       Thr       Glu       Phe       Phe       Ile       I	The file of the section of t	The         Glu         Gly         Leu         Gly         Asp         Val         Glu         Lys         Gly           The         11e         Phe         Ala         Leu         Val         Leu         Leu         Cys           The         11e         Phe         Ala         Leu         Val         Leu         Cys           Ser         Met         Fhe         Thr         Ile         Asp         His         Glu         Ala           Ser         Met         Ser         Thr         Glu         Ile         Ile         Ala         Lys         Ala         Lys         Ala         Lys         Ala         Lys         Ala         Lys         Ala         Lys         Ile         Ile	Thr         Glu         Gly         Leu         Gly         Asp         Val         Glu         Lys         Gly         Asp           Thr         11e         Par         Ala         Leu         Ala         Leu         Leu         Leu         Cly         Ser           Thr         11e         Leu         Ala         His         Glu         Ala         Leu         Leu         Leu         Glu           Ser         Met         Ser         Thr         11e         Leu         His         Leu         Ala         Ila         Ila	The         Glu         Elu         Elu         Glu         Asp         Val         Glu         Lys         Gly         Asp         Product           Try         10e         Pero         100<	The   Glu   Glu	The Incise of the Inc

GIu	His 370	Ser	Phe	Lys	Asp	G1u 375	Asn	GIn	Glu	Phe	G1n 380	Lys	Lys	Phe	Met
Glu		Thr	Met	Asn	Lvs		Glv	Asn	Phe	Leu		Gln	Asn	Glu	Glu
385					390	2,0	01)			395	1,00	0111	71011	ora	400
	Ser	Val	Gln	Tyr	Cys	Gln	Ala	Lys	Leu		Glu	Leu	Ser	Lvs	
				405				•	410					415	-
Leu	Met	Glu	Ser	lle	Ser	Ala	Gly	Ser	Phe	Ser	Val	Pro	Gly	Gly	His
			420					425					430		
Lys	Leu	Tyr	Met	Glu	Thr	Lys	Glu	Arg	Ile	Glu	Gln	Asp	Tyr	Trp	Gln
		435					440					445			
Val	Pro	Arg	Lys	Gly	Val	Lys	Ala	Lys	Glu	Val	Phe	Gln	Arg	Phe	Leu
	450					455					460				
Glu	Ser	Gln	Met	Val	lle	Glu	Glu	Ser	11e	Leu	Gln	Ser	Asp	Lys	Ala
465					470					475					480
Leu	Thr	Asp	Arg	G1u	Lys	Ala	Val	Ala	Val	Asp	Arg	Ala	Lys	Lys	Glu
				485					490					495	
Ala	Ala	Glu	Lys	Glu	Gln	G1u	Leu	Leu	Lys	Gln	Lys	Leu	Gln	Glu	Gln
			500					505					510		
GIn	Gln		Met	Glu	Ala	Gln		Lys	Ser	Arg	Lys		Asn	He	Ala
~ 7		515					520					525			
GIn		Lys	Glu	Lys	Leu		Met	Glu	Arg	Glu		Leu	Leu	Arg	Glu
C 1	530		м.		C.1	535	T)	6.1		37 1	540			<b></b>	
	11e	мет	Met	Leu		H1S	Ihr	Gin	Lys		GIn	Asn	Asp	Irp	
545 u: a	C1	Clu	Dlag	Lua	550	1	Т	C1	C1	555 M-4	Λ	۸1.	C1	11.	560
1112	oru	Gry	rne	565	Lys	Lys	1 у 1	Glu	Glu 570	мес	ASII	АТА	Gju	575	ser
Gln	Phe	lve	Aro		Tle	Asn	Thr	Thr	Lys	Acn	Aen	Aen	Thr		Trn
OTII	7 110	Lys	580	MC C	110	пэр	1111	585	Lys	ASII	nsp	nsh	590	110	пр
He	Ala	Arg		Leu	Asp	Asn	Leu		Asp	Glu	Len	Thr		He	l eu
		595					600		пор	014		605	,,,,,	110	Lea
Ser	Ala	Pro	Ala	Lys	Leu	lle	Gly	His	Gly	Val	Lys		Val	Ser	Ser
	610					615	•		•		620	•			
Leu	Phe	Lys	Lys	His	Lys	Leu	Pro	Phe							
625					630										

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<210> 4963
<211> 779
<212> PRT
<213> Homo sapiens
<400> 586
Met Leu Pro Cys His Ser Pro Ser Arg Ser Asp Gln Val Asn Leu Gly
 1
                  5
                                                          15
Pro Ser Ile Asn Ser Lys Leu Leu Gly Met Ser Thr Gln Asn Tyr Ala
             20
                                 25
Leu Met Gln Val Ala Gly Gln Glu Gly Thr Phe Ser Leu Val Ala Leu
                             40
Pro His Val Ala Ser Ala Gln Pro 11e Gln Lys Pro Arg Met Ser Leu
     50
                         55
                                              60
Pro Glu Asn Leu Lys Leu Pro IIe Pro Arg Tyr Gln Pro Pro Arg Asn
                     70
                                          75
Ser Lys Ala Ser Arg Lys Lys Pro Ile Leu Ile Phe Pro Lys Ser Gly
                 85
                                     90
Cys Ser Lys Ala Pro Ala Gln Thr Gln Met Cys Pro Gln Met Ser Pro
                                105
                                                     110
Ser Pro Pro His His Pro Glu Leu Leu Tyr Lys Pro Ser Pro Phe Glu
                            120
Glu Val Pro Ser Leu Glu Gln Ala Pro Ala Ser Ile Ser Thr Ala Ala
    130
                        135
                                             140
Leu Thr Asn Gly Ser Asp His Gly Asp Leu Arg Pro Pro Val Thr Asn
145
                    150
                                         155
                                                             160
Thr His Gly Ser Leu Asn Pro Pro Ala Thr Pro Ala Ser Ser Thr Pro
                165
                                    170
Glu Glu Pro Ala Lys Gln Asp Leu Thr Ala Leu Ser Gly Lys Ala His
            180
                                185
                                                     190
Phe Val Ser Lys Ile Thr Ser Ser Lys Pro Ser Ala Val Ala Ser Glu
                            200
                                                 205
Lys Phe Lys Glu Gln Val Asp Leu Ala Lys Thr Met Thr Asn Leu Ser
    210
                        215
                                             220
Pro Thr lle Leu Gly Asn Ala Val Gln Leu lle Ser Ser Val Pro Lys
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Gly	Lys	Leu	Pro	lle	Pro	Pro	Tyr	Ser	Arg	Met	Lys	Thr	Met	Glu	Val
				245					250					255	
Tyr	Lys	lle	Lys	Ser	Asp	Ala	Asn	lle	Ala	Gly	Phe	Ser	Leu	Pro	Gly
			260					265					270		
Pro	Lys	Ala	Asp	Cys	Asp	Lys	lle	Pro	Ser	Thr	Thr	Glu	Gly	Phe	Asn
		275					280					285			
Ala	Ala	Thr	Lys	Val	Ala	Ser	Arg	Leu	Pro	Va1	Pro	Gln	Va]	Ser	Gln
	290					295					300				
Gln	Ser	Ala	Cys	Glu	Ser	Ala	Phe	Cys	Pro	Pro	Thr	Lys	Leu	Asp	Leu
305					310					315					320
Asn	His	Lys	Thr	Lys	Leu	Asn	Ser	Gly	Ala	Ala	Lys	Arg	Lys	G1 y	Arg
				325					330					335	
Lys	Arg	Lys	Val	Pro	Asp	Glu	11e	Leu	Ala	Phe	Gln	Gly	Lys	Arg	Arg
			340					345					350		
Lys	Tyr	He	lle	Asn	Lys	Cys	Arg	Asp	Gly	Lys	Glu	Arg	Val	Lys	Ásn
		355					360					365			
Asp	Pro	Gln	Glu	Phe	Arg	Asp	Gln	Lys	Leu	Gly	Thr	Leu	Lys	Lys	Tyr
	370					375					380				
Arg	Ser	lle	Met	Pro	Lys	Pro	He	Met	Val	He	Pro	Thr	Leu	Ala	Ser
385					390					395					400
Leu	Ala	Ser	Pro	Thr	Thr	Leu	Gln	Ser	Gln	Met	Leu	G1 y	Gly	Leu	Gly
				405					410					415	
Gln	Asp	Val	Leu	Leu	Asn	Asn	Ser	Leu	Thr	Pro	Lys	Tyr	Leu	G1y	Cys
			420					425					430		
Lys	Gln	Asp	Asn	Ser	Ser	Ser	Pro	Lys	Pro	Ser	Ser	Val	Phe	Arg	Asn
		435					440					445			
Gly	Phe	Ser	Gly	Пе	Lys	Lys	Pro	Trp	His	Arg	Cys	His	Val	Cys	Asn
	450					455					460				
	His	Phe	Gln	Phe	Lys	Gln	His	Leu	Arg	Asp	His	Met	Asn	Thr	His
465					470					475					480
Thr	Asn	Arg	Arg	Pro	Tyr	Ser	Cys	Arg	He	Cys	Arg	Lys	Ser	Tyr	Val
				485					490					495	
Arg	Pro	Gly		Leu	Ser	Thr	His	Met	Lys	Leu	His	His	Gly	Glu	Asn
			500					505					510		
Arg	Leu		Lys	Leu	Met	Cys		Glu	Phe	Cys	Ala		Val	Phe	Gly
		515					520					525			

His	lle	Arg	Val	Tyr	Phe	Gly	His	Leu	Lys	Glu	Val	His	Arg	Val	Val
	530					535					540				•
He	Ser	Thr	Glu	Pro	Ala	Pro	Ser	Glu	Leu	Gln	Pro	Gly	Λsp	He	Pro
545					550					555					560
Lys	Asn	Arg	Asp	Met	Ser	Val	Arg	Gly	Met	Glu	Gly	Ser	Leu	G]u	Arg
				565					570					575	
Glu	Asn	Lys	Ser	Asn	Leu	Glu	Glu	Asp	Phe	Leu	Leu	Asn	Gln	Ala	Asp
			580					585					590		
Glu	Val	Lys	Leu	Gln	He	Lys	Cys	Gly	Arg	Cys	Gln	He	Thr	Ala	Gln
		595					600					605			
Ser	Phe	Ala	Glu	He	Lys	Phe	His	Leu	Leu	Gly	Val	His	Gly	Glu	Glu
	610					615					620				
He	Glu	Gly	Arg	Leu	Gln	Glu	Gly	Thr	Phe	Pro	Gly	Ser	Lys	Gly	Thr
625					630					635				٠	640
Gln	Glu	Glu	Leu	Va]	Gln	His	Ala	Ser	Pro	Asp	Trp	Lys	Arg	His	Pro
				645					650					655	
Glu	Arg	Gly	Lys	Pro	Glu	Lys	Val	His	Ser	Ser	Ser	Glu	Glu	Ser	His
			660					665					670		
Ala	Cys	Pro	Arg	Leu	Lys	Arg	Gln	Leu	His	Leu	His	Gln	Asn	Gly	Val
		675					680					685			
Glu	Met	Leu	Met	Glu	Asn	Glu	Gly	Pro	Gln	Ser	Gly	Thr	Asn	Lys	Pro
	690					695					700				
Arg	Glu	Thr	Cys	G]n	Gly	Pro	Glu	Cys	Pro	Gly	Leu	His	Thr	Phe	Leu
705					710					715					720
Leu	Trp	Ser	His	Ser	Gly	Phe	Asn	Cys	Leu	Leu	Cys	Ala	Glu	Met	Leu
				725					730					735	
Gly	Arg	Lys	Glu	Asp	Leu	Leu	His	His	Trp	Lys	His	Gln	His	Asn	Cys
			740					745					750		
Glu	Asp	Pro	Ser	Lys	Leu	Trp	Ala	11e	Leu	Asn	Thr	Val	Ser	Asn	Gln
		755					760					765			
Gly	Val	11e	Glu	Leu	Ser	Ser	Glu	Ala	Glu	Lys					
	770					775									

<210> 4964

<211> 353

<212> PRT <213> Homo sapiens

<400	)> 58	37	
Met	Glu	Phe	Ar
l			

g Lys Thr Met Asp Ile Asp His Thr Leu Asp Trp Gln 

Pro Pro Glu Val Ile Gln Lys Tyr Met Pro Gly Gly Leu Cys Gly Tyr 

Asp Arg Asp Gly Cys Pro Val Trp Tyr Asp Ile Thr Gly Pro Leu Asp 

Pro Lys Gly Leu Leu Phe Ser Val Thr Lys Gln Asp Leu Leu Lys Thr 

Lys Met Arg Asp Cys Glu Arg Ile Leu His Glu Cys Asp Leu Gln Thr 

Glu Arg Leu Gly Lys Lys lle Glu Thr lle Val Met lle Phe Asp Cys 

Glu Gly Leu Gly Leu Lys His Phe Trp Lys Pro Leu Val Glu Val Tyr 

Gln Glu Phe Phe Gly Leu Leu Glu Glu Asn Tyr Pro Glu Thr Leu Lys 

Phe Met Leu lle Val Lys Ala Thr Lys Leu Phe Pro Val Gly Tyr Asn 

Leu Met Lys Pro Phe Leu Ser Glu Asp Thr Arg Arg Lys lle lle Val 

Leu Gly Asn Asn Trp Lys Glu Gly Leu Leu Lys Leu 11e Ser Pro Glu 

Glu Leu Pro Ala Gln Phe Gly Gly Thr Leu Thr Asp Pro Asp Gly Asn 

Pro Lys Cys Leu Thr Lys Ile Asn Tyr Gly Gly Glu Ile Pro Lys Ser 

Met Tyr Val Arg Asp Gln Val Lys Thr Gln Tyr Glu His Ser Val Gln 

lle Asn Arg Gly Ser Ser His Gln Val Glu Tyr Glu lle Leu Phe Pro 

Gly Cys Val Leu Arg Trp Gln Phe Ser Ser Asp Gly Ala Asp He Gly 

Phe Gly Val Phe Leu Lys Thr Lys Met Gly Glu Arg Gln Arg Ala Gly Glu Met Thr Glu Val Leu Pro Ser Gln Arg Tyr Asn Ala His Met Val Pro Glu Asp Gly Asn Leu Thr Cys Ser Glu Ala Gly Val Tyr Val Glu Ser Glu Ser Gly Lys Ser Cys Cys His Leu Pro Val Ile Ile Cys Ser His Glu Leu Gln Asn Ser His Ser Asn Ser Gln Val Met Ala Tyr Gln Met Val Arg Lys Cys Lys Leu Ser Arg Pro Leu Pro Leu Pro Ala Ser Asn

<210> 4965

<211> 606

<212> PRT

<213> Homo sapiens

<400> 588

Met Cys Leu Glu Lys Arg Tyr Leu Asp Val Leu Ser Asp Val Thr Gly Pro Gln Val Ser Cys Tyr Ile Thr Ala Pro Ser Tyr Val Leu Gln Gln Leu Glu Cys Arg Ile Ile Asn His Met Ser Ser Leu Ile Val Glv Asp Asn Glu Glu Leu Val Ser Asn Val Ile Thr Ile Glu Cys Ser Asp Lys Glu Lys Arg Val Pro Phe Pro Ile Gly Ile Ala Ile Pro Phe Thr Ala Arg Tyr Arg Gly Asn Tyr Arg Asp lle Met Val Lys Val Cys Asp lle Asn Leu Gln Ser Ser Tyr Leu Asn Pro Asn Ser Leu Glu Gly Met Lys 

G1 y	Gly	Tyr 115	Lys	Gly	Thr	Cys	Ala 120	Ser	Val	Lys	Val	Tyr 125	Lys	Leu	Gly
He	Phe		Val	Val	Ser	Cys		Lys	Lys	Glu	Ser		Thr	Val	Thr
	130					135		·	•		140				
Lys	Lys	Gly	Leu	Ala	Leu	Lys	Ser	Ser	Met	Asp	Ser	Arg	lle	Ser	Leu
145					150					155					160
Asn	Tyr	Pro	Pro	Gly	Val	Phe	Thr	Ser	Pro	Val	Leu	Val	Gln	Leu	Lys
				165					170					175	
Пlе	Gln	Pro	Val	Asp	Pro	Ala	Leu	Val	Ala	His	Leu	Lys	Ala	Gln	Gln
			180					185					190		
Asp	Thr	Phe	Tyr	Ser	Val	Gln	Ser	Thr	Ser	Pro	Leu	Ile	His	Ile	Gln
		195					200					205			
His	Pro	Ser	Thr	Tyr	Pro	Phe	Gln	Lys	Pro	Val	Thr	Leu	Phe	Leu	Pro
	210					215					220				
	Ser	Pro	Tyr	Leu		Lys	Asn	Asn	Leu		Ser	Glu	He	Asp	
225					230					235					240
Lys	Arg	Arg	Ala		Ala	Thr	Ile	Asn		He	Thr	Pro	Ser		Phe
	•	T)	,	245	. 1		T 1		250	<b>D</b>				255	_
Asn	Arg	lhr		He	Ala	Ser	He		Lys	Pro	Arg	Lys	Asn	Ala	Ser
Clu	Cvc	Lou	260	Lou	Lou	C1.v	Dha	265	Con	Cl <sub>n</sub>	Aan	Con	270 Gly	Т	Cua
Gru	Cys	275	Lys	Leu	Leu	Gly	280	AJ g	261	GIII	ASP	285	GTY	пр	Cys
G1v	Leu		Asn	Val	Val	Lve		116	Gln	Sor	G1 v		Val	Sor	Val
019	290	пор	пор	vai	701	295		110	0111	501	300	Leu	vai	561	, (1)
Glu		Tyr	Glu	His	Leu		Arg	Phe	Пе	Val		His	Leu	Ser	Ser
305		-			310		Ŭ			315					320
Thr	Met	Asp	Asn	Ser	His	Leu	Va]	Thr	Phe	Val	Lys	Ser	Leu	Glu	
				325					330					335	
Ala	Met	Leu	Ser	Thr	Thr	Ala	Cys	lle	Val	Leu	Ser	His	Gln	Lys	Asp
			340					345					350		
Asn	Pro	His	Arg	Ile	Ala	Val	Leu	Val	Val	Pro	Ser	Lys	Asp	Leu	Ser
		355					360					365			
G]n	Val	Leu	Lys	Asp	Leu	His	Leu	Glu	Gly	Phe	Gly	Gly	Pro	Pro	Glu
	370					375					380				
Pro	Ser	Arg	His	Phe	Gln	Val	Arg	Glu	Gly	Glu	Gln	Leu	Leu	Leu	Arg
385					300					205					400

Phe Thr Gly Asn Ile Phe Ala Ser Ser Asn Gly Lys Asp Tyr Gly Lys Asp Tyr Thr Leu Ile Phe His Leu Gln Arg Lys Pro Arg Leu Glu Leu · Gln Ile Lys Glu Val Asp Glu Phe Gly Asn Tyr Ser Cys Pro His Tyr Lys Gly Thr Ile Val Val Tyr Lys Val Pro Lys Gly Lys Ile Val Pro Asn Leu Asn Gln Ser Leu Val Ile Asn Glu Asn His Ser Gln Leu Pro Ile Cys Lys Leu Pro Leu Lys Leu Pro Lys His Lys Lys Leu Ile Asn His Pro Gln Ser Thr Lys Arg Val Ser Lys Asp Pro Val Glu Ala Leu Trp Asp Asn Leu Leu His Trp Leu Ala Glu Glu Leu Ser Glu Glu Asn Ala Glu Ser Leu Ser Ser Thr Leu Pro Leu Arg Arg Ser Thr Ile Gln Leu Ile Lys Leu Lys Asn Pro Asp Asp Leu Thr Glu Gln Ile His Glu Phe Leu Cys Phe Trp Lys Lys Ser Leu Pro Thr Phe Thr Asp Lys Leu Arg Leu Leu Ala Arg His Leu Arg Lys Ile Gly Arg Ser Asp Leu Ala Glu Glu Leu Lys Phe Lys Trp Glu Asn Lys Val Phe Thr Glu 

<210> 4966

<211> 151

<212> PRT

<213> Homo sapiens

<400> 589

Met Ala Thr Ile Thr Met Gln Ala Tyr Ser Arg Gly Phe Leu Ala Arg

1 5 10 15

Arg Arg Tyr Arg Lys Met Leu Glu Glu His Lys Ala Val Ile Leu Gln 20 25 Lys Tyr Ala Arg Ala Trp Leu Ala Arg Arg Arg Phe Gln Ser Ile Arg 35 40 45 Arg Phe Val Leu Asn Ile Gln Leu Thr Tyr Arg Val Gln Arg Leu Gln 55 Lys Lys Leu Glu Asp Gln Asn Lys Glu Asn His Gly Leu Val Glu Lys 65 70 75 80 Leu Thr Ser Leu Ala Ala Leu Arg Ala Gly Asp Val Glu Lys Ile Gln 85 90 Lys Leu Glu Ala Glu Leu Glu Lys Ala Ala Thr His Arg Arg Asn Tyr 100 105 Glu Glu Lys Gly Lys Arg Tyr Arg Asp Ala Val Glu Glu Val Ser Cys 115 120 125 Gly Arg Val Arg Arg Asp Gly Asn Met Arg Thr Leu Cys Glu Lys Asp 130 135 140 Glu Arg Cys Gln Leu Phe Leu 145 150

<210> 4967

<211> 731

<212> PRT

<213> Homo sapiens

<400> 590

Met Met Gln Ala Gln Glu Ser Leu Thr Leu Glu Asp Val Ala Val Asp 1 5 10 15

Phe Thr Trp Glu Glu Trp Gln Phe Leu Ser Pro Ala Gln Lys Asp Leu 20 25 30

Tyr Arg Asp Val Met Leu Glu Asn Tyr Ser Asn Leu Val Ala Val Gly
35 40 45

Tyr Gln Ala Ser Lys Pro Asp Ala Leu Ser Lys Leu Glu Arg Gly Glu 50 55 60

Glu Thr Cys Thr Thr Glu Asp Glu 11e Tyr Ser Arg 11e Cys Ser Glu 65 70 75 80

lle	Arg	Lys	He	Asp	Asp	Pro	Leu	Gln	His	His	Leu	Gln	Asn	Gln	Ser
				85					90					95	
11e	Gln	Lys	Ser	Val	Lys	Gln	Cys	His	Glu	Gln	Asn	Met	Phe	Gly	Asn
			100					105					110		
He	Val	Asn	Gln	Asn	Lys	Gly	His	Phe	Leu	Leu	Lys	Gln	Asp	Cys	Asp
		115					120					125			
Thr	Phe	Asp	Leu	His	Glu	Lys	Pro	Leu	Lys	Ser	Asn	Leu	Ser	Phe	Glu
	130					135					140				
Asn	Gln	Lys	Arg	Ser	Ser	Gly	Leu	Lys	Asn	Ser	Ala	Glu	Phe	Asn	Arg
145					150					155					160
Asp	Gly	Lys	Ser	Leu	Phe	His	Ala	Asn	His	Lys	Gln	Phe	Tyr	Thr	Glu
				165					170					175	
Met	Lys	Phe	Pro	Ala	He	Ala	Lys	Pro	He	Asn	Lys	Ser	Gln	Phe	lle
			180					185					190		
Lys	Gln	Gln	Arg	Thr	His	Asn	He	Glu	Asn	Ala	His	Val	Cys	Ser	Glu
		195					200					205			
Cys	Gly	Lys	Ala	Phe	Leu	Lys	Leu	Ser	Gln	Phe	He	Asp	His	Gln	Arg
	210					215					220				
Val	His	Thr	Gly	Glu	Lys	Pro	His	Val	Cys	Ser	Met	Cys	Gly	Lys	Ala
225					230					235					240
Phe	Ser	Arg	Lys	Ser	Arg	Leu	Met	Asp	His	Gln	Arg	Thr	His	Thr	Glu
				245					250					255	
Leu	Lys	His	Tyr	Glu	Cys	Thr	Glu		Asp	Lys	Thr	Phe	Leu	Lys	Lys
			260					265					270		
Ser	Gln	Leu	Asn	He	His	Gln	Lys	Thr	His	Met	Gly	Gly	Lys	Pro	Tyr
		275					280					285			
Thr		Ser	Gln	Cys	Gly		Ala	Phe	He	Lys		Cys	Arg	Leu	He
	290					295					300				
	His	Gln	Arg	Thr		Thr	Gly	Glu	Lys		His	Gly	Cys	Ser	
305					310					315					320
Cys	Gly	Lys	Ala		Ser	Thr	Lys	Phe		Leu	Thr	Thr	His	Gln	Lys
				325				,	330			_		335	
Thr	His	Thr	-	Glu	Lys	Pro	Tyr		Cys	Ser	Glu	Cys		Lys	Gly
n.	~ -	<i>p</i> •	340				<i>m</i> :	345				<i>m</i> '	350	m.	6.1
Phe	lle		Lys	Arg	Arg	Leu		Ala	His	His	Arg		His	Thr	Gly
		355					360					365			

Glu		Pro	Phe	lle	Cys		Lys	Cys	Gly	Lys		Phe	Thr	Leu	Lys
	370					375					380				
	Ser	Leu	He	Thr	His	Gln	Gln	Thr	His		Gly	Glu	Lys	Leu	
385		_			390					395					400
Thr	Cys	Ser	Glu		G1 y	Lys	Gly	Phe		Met	Lys	His	Cys		Met
				405					410					415	
Val	His	Gln	Arg	Thr	His	Thr	G1 y	G] u	Lys	Pro	Tyr	Lys	Cys	Asn	Glu
			420					425					430		
Cys	Gly	Lys	Gly	Phe	Ala	Leu	Lys	Ser	Pro	Leu	Ile	Arg	His	Gln	Arg
		435					440					445			
Thr	His	Thr	Gly	Glu	Lys	Pro	Tyr	Val	Cys	Thr	Glu	Cys	Arg	Lys	Gly
	450					455					460				
Phe	Thr	Met	Lys	Ser	Asp	Leu	He	Val	His	Gln	Arg	Thr	His	Thr	Ala
465					470					475					480
Glu	Lys	Pro	Tyr	He	Cys	Asn	Asp	Cys	Gly	Lys	Gly	Phe	Thr	Val	Lys
				485					490					495	
Ser	Arg	Leu	lle	Val	His	Gln	Arg	Thr	His	Thr	Gly	Glu	Lys	Pro	Tyr
			500					505					510		
Val	Cys	Gly	Glu	Cys	Gly	Lys	Gly	Phe	Pro	Ala	Lys	He	Arg	Leu	Met
		515					520					525			
Gly	His	Gln	Arg	Thr	His	Thr	Gly	Glu	Lys	Pro	Tyr	He	Cys	Asn	Glu
	530					535					540				
Cys	Gly	Lys	Gly	Phe	Thr	Glu	Lys	Ser	His	Leu	Asn	Val	His	Arg	Arg
545					550					555					560
Thr	His	Thr	Gly	Glu	Lys	Pro	Tyr	Val	Cys	Ser	Glu	Cys	Gly	Lys	Asp
				565					570					575	
Leu	Thr	Gly	Lys	Ser	Met	Leu	He	Ala	His	Gln	Arg	Thr	His	Thr	Gly
			580					585					590		
Glu	Lys	Pro	Tyr	Пе	Cys	Asn	Glu	Cys	Gly	Lys	Gly	Phe	Thr	Met	Lys
		595					600					605			
Ser	Thr	Leu	Ser	lle	His	Gln	Gln	Thr	His	Thr	Gly	Glu	Lys	Pro	Tyr
	610					615					620				
Lys	Cys	Asn	Glu	Cys	Asp	Lys	Thr	Phe	Arg	Lys	Lys	Thr	Cys	Leu	Ile
625					630					635					640
Gle	Ніс	Gla	Ara	Pho	нь	Thr	C1v	Lve	The	Con	Dhe	A16	Cvc	The	C1

Cys Gly Lys Phe Ser Leu Arg Lys Asn Asp Leu Ile Thr His Gln Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Ser Asp Cys Gly Lys Ala Phe Thr Thr Lys Ser Gly Leu Asn Val His Gln Arg Lys His Thr Gly Glu Arg Pro Tyr Gly Cys Ser Asp Cys Gly Lys Ala Phe Ala His Leu Ser Ile Leu Val Lys His Arg Arg Ile His Arg 

<210> 4968

<211> 1186

<212> PRT

<213> Homo sapiens

<400> 591

Met Tyr Gln Ala Leu Glu Gln Gly Gly Met Thr Phe Gly Trp Val Cys Trp Met Ile Leu Phe Asp Ser Ser Leu Tyr Phe Leu Cys Gly Trp Tyr Leu Ser Asn Leu lle Pro Gly Thr Phe Gly Leu Arg Lys Pro Trp Tyr Phe Pro Phe Thr Ala Ser Tyr Trp Lys Ser Val Gly Phe Leu Val Glu Lys Arg Gln Tyr Phe Leu Ser Ser Leu Phe Phe Phe Asn Glu Asn Phe Asp Asn Lys Gly Ser Ser Leu Gln Asn Arg Glu Gly Glu Leu Glu Gly Ser Ala Pro Gly Val Thr Leu Val Ser Val Thr Lys Glu Tyr Glu Gly His Lys Ala Val Val Gln Asp Leu Ser Leu Thr Phe Tyr Arg Asp 

Gln Ile Thr Ala Leu Leu Gly Thr Asn Gly Ala Gly Lys Thr Thr Ile

	130					135					140				
He	Ser	Met	Leu	Thr	Gly	Leu	His	Pro	Pro	Thr	Ser	Gly	Thr	He	Ile
145					150					155					160
11e	Asn	Gly	Lys	Asn	Leu	Gln	Thr	Asp	Leu	Ser	Arg	Val	Arg	Met	Glu
				165					170					175	
Leu	Gly	Val	Cys	Pro	Gln	G1n	Asp	lle	Leu	Leu	Asp	Asn	Leu	Thr	Val
			180					185					190		
Arg	Glu	His	Leu	Leu	Leu	Phe	Ala	Ser	He	Lys	Ala	Pro	Gln	Trp	Thr
		195					200					205			
Lys	Lys	Glu	Leu	His	Gln	Gln	Val	Asn	Gln	Thr	Leu	Gln	Asp	Val	Asp
	210					215					220				
Leu	Thr	Gln	His	Gln	His	Lys	Gln	Thr	Arg	Ala	Leu	Ser	Gly	Gly	Leu
225					230					235					240
Lys	Arg	Lys	Leu	Ser	Leu	Gly	He	Ala	Phe	Met	Gly	Met	Ser	Arg	Thr
				245					250					255	
Val	Val	Leu	Asp	Glu	Pro	Thr	Ser	Gly	Val	Asp	Pro	Cys	Ser	Arg	His
			260					265					270		
Ser	Leu		Asp	Ile	Leu	Leu	Lys	Tyr	Arg	Glu	Gly	Arg	Thr	He	He
		275					280					285			
Phe		Thr	His	His	Leu		Glu	Ala	Glu	Ala	Leu	Ser	Asp	Arg	Val
	290					295					300				
	Val	Leu	GIn	His		Arg	Leu	Arg	Cys		G1 y	Pro	Pro	Phe	
305					310					315					320
Leu	Lys	Glu	Ala	Tyr	Gly	Gln	G1 y	Leu		Leu	Thr	Leu	Thr		Gln
D	C		,	325				_	330					335	
Pro	Ser	val		Glu	Ala	His	Asp		Lys	Asp	Met	Ala		Val	Thr
C	1	71.	340	11	T	7.1	D	345	4.1	D)			350		
ser	Leu		Lys	He	lyr	He		GIn	Ala	Phe	Leu		Asp	Ser	Ser
C1 <sub>11</sub>	Sor	355	Lou	Thu	Т	TL	360	D	1	Δ	TI	365		. 7	
	370	GIU	Leu	Thr	I VI	375	116	Pro	Lys	Asp		Asp	Lys	Ala	Cys
		Glv	Lou	Phe	Cln		Lou	Aan	Clu	Aan	380	115	C1-	1	112 -
385	Lys	Oly	Leu	rne	390	мта	reu	ASP	GIY		Leu	H1S	GIN	Leu	
	Thr	G1v	Tyr	Gly		Sor	Acn	Thr	Thr	395	C1	Clu	Vol.	Dha	400
u		оту	тул	405	116	361	ush	1111	410	rea	OIU	oru	val	415	Leu
Met	Leu	Leu	Gln	Asp	Ser	Asn	lve	lve		Hie	116	Ala	Lau		Thr

			420					425					430		
Glu	Ser	Glu	Leu	Gln	Asn	His	Arg	Pro	Thr	Gly	His	Leu	Ser	Gly	Tyr
		435					440					445			
Cys	Gly	Ser	Leu	Ala	Arg	Pro	Ala	Thr	Val	Gln	Gly	Val	Gln	Leu	Leu
	450					455					460				
Arg	Ala	Gln	Val	Ala	Ala	He	Leu	Ala	Arg	Arg	Leu	Arg	Arg	Thr	Leu
465					470					475					480
Arg	Ala	Gly	Lys	Ser	Thr	Leu	Ala	Asp	Leu	Leu	Leu	Pro	Val	Leu	Phe
				485					490					495	
Val	Ala	Leu	Ala	Met	Gly	Leu	Phe	Met	Val	Arg	Pro	Leu	Ala	Thr	Glu
			500					505					510		
Tyr	Pro	Pro	Leu	Arg	Leu	Thr	Pro	Gly	His	Tyr	Gln	Arg	Ala	Glu	Thr
		515					520					525			
Tyr	Phe	Phe	Ser	Ser	Gly	Gly	Asp	Asn	Leu	Asp	Leu	Thr	Arg	Val	Leu
	530					535					540				
Leu	Arg	Lys	Phe	Arg	Asp	Gln	Asp	Leu	Pro	Cys	Ala	Asp	Leu	Asn	Pro
545					550					555					560
Arg	Gln	Lys	Asn	Ser	Ser	Cys	Trp	Arg	Thr	Asp	Pro	Phe	Ser	His	Pro
				565					570					575	
Glu	Phe	Gln	Asp	Ser	Cys	Gly	Cys	Leu	Lys	Arg	Pro	Asn	Arg	Ser	Ala
			580					585					590		
Ser	Ala	Pro	Tyr	Leu	Thr	Asn	His	Leu	Gly	His	Thr	Leu	Leu	Asn	Leu
		595					600					605			
Ser	G1 y	Phe	Asn	Met	Glu	Glu	Tyr	Leu	Leu	Ala	Pro	Ser	Glu	Lys	Pro
	610					615					620				
Arg	Leu	Gly	Gly	Trp	Ser	Phe	Gly	Leu	Lys	Ile	Pro	Ser	Glu	Ala	Gly
625					630					635					640
Gly	Ala	Asn	Gly	Asn	He	Ser	Lys	Pro	Pro	Thr	Leu	Ala	Lys	Val	Trp
				645					650					655	
Tyr	Asn	Gln	Lys	Gly	Phe	His	Ser	Leu	Pro	Ser	Tyr	Leu	Asn	His	Leu
			660					665					670		
Asn	Asn	Leu	He	Leu	Trp	Gln	His	Leu	Pro	Pro	Thr	Val	Asp	Trp	Arg
		675					680					685			
Gln	Tyr	Gly	He	Thr	Leu	Tyr	Ser	His	Pro	Tyr	Gly	Gly	Ala	Leu	Leu
	690					695					700				
Asn	Glu	Asp	Lys	He	Leu	Glu	Ser	He	Arg	Gln	Cvs	Glv	Val	Ala	Leu

705					710					715					720
Cys	lle	Val	Leu	Gly	Phe	Ser	Ile	Leu	Ser	Ala	Ser	lle	Gly	Ser	Ser
	,			725					730					735	
Val	Val	Arg	Asp	Arg	Val	Ile	Gly	Ala	Lys	Arg	Leu	Gln	His	Ile	Ser
			740					745					750		
Gly	Leu	Gly	Tyr	Arg	Met	Tyr	Trp	Phe	Thr	Asn	Phe	Leu	Tyr	Asp	Met
		755					760					765			
Leu	Phe	Tyr	Leu	Val	Ser	Val	Cys	Leu	Cys	Val	Ala	Val	lle	Val	Ala
	770					775					780				
Phe	Gln	Leu	Thr	Ala	Phe	Thr	Phe	Arg	Lys	Asn	Leu	Ala	Ala	Thr	Ala
785					790					795					800
Leu	Leu	Leu	Ser	Leu	Phe	Gly	Tyr	Ala	Thr	Leu	Pro	Trp	Met	Tyr	Leu
				805					810					815	
Met	Ser	Arg	He	Phe	Ser	Ser	Ser	Asp	Val	Ala	Phe	He	Ser	Tyr	Val
			820					825					830		
Ser	Leu	Asn	Phe	He	Phe	Gly	Leu	Cys	Thr	Met	Leu	lle	Thr	He	Met
		835					840					845			
Pro	Arg	Leu	Leu	Ala	He	Пе	Ser	Lys	Ala	Lys	Asn	Leu	Gln	Asn	He
	850					855					860				
Tyr	Asp	Val	Leu	Lys	Trp	Val	Phe	Thr	Ile	Phe	Pro	Gln	Phe	Cys	Leu
865					870					875					880
G1 y	Gln	Gly	Leu	Val	G]u	Leu	Cys	Tyr	Asn	Gln	Thr	Lys	Tyr	Asp	Leu
				885					890					895	
Thr	His	Asn		Gly	He	Asp	Ser		Val	Ser	Pro	Phe	Glu	Met	Asn
			900					905					910		
Phe	Leu		Trp	He	Phe	Val		Leu	Ala	Ser	Gln		Thr	Val	Leu
_		915					920					925			
Leu		Leu	Arg	Val	Leu		His	Trp	Asp	Leu		Arg	Trp	Pro	Arg
	930					935				_	940				
	His	Ser	Thr	Leu		Gly	Thr	Val	Lys		Ser	Lys	Asp	Thr	
945	6.1		C.1	<i>C</i> .1	950			151	0.1	955		m)		0.1	960
Val	Glu	Lys	GJu		Lys	Arg	Val	Phe		Gly	Arg	Thr	Asn	Gly	Asp
נד	,	17 3		965 T		,	C		970	T			DI	975	
11e	Leu	val		lyr	Asn	Leu	5er		His	lyr	Arg	Arg		Phe	GIn '
A a.s.	11.	11.	980	V = 1	C1	۸	т1 -	985	1	C1	11.	D	990	Clv	C I
	110	1 1 (2)	A 1 54	v sa i	1.12	acr	110	SOr	1 (2)	1 - 1 37	110	1-1-0	1 1/ 0	1 - 1 37	4 - 1 1 *

Cys Phe Gly Leu Leu Gly Val Asn Gly Ala Gly Lys Ser Thr Thr Phe Lys Met Leu Asn Gly Glu Val Ser Leu Thr Ser Gly His Ala Ile Ile Arg Thr Pro Met Gly Asp Ala Val Asp Leu Ser Ser Ala Gly Thr Ala Gly Val Leu Ile Gly Tyr Cys Pro Gln Gln Asp Ala Leu Asp Glu Leu Leu Thr Gly Trp Glu His Leu Tyr Tyr Tyr Cys Ser Leu Arg Gly Ile Pro Arg Gln Cys lle Pro Glu Val Ala Gly Asp Leu Ile Arg Arg Leu His Leu Glu Ala His Ala Asp Lys Pro Val Ala Thr Tyr Ser Glv Glv Thr Lys Arg Lys Leu Ser Thr Ala Leu Ala Leu Val Gly Lys Pro Asp lle Leu Leu Leu Asp Glu Pro Ser Ser Gly Met Asp Pro Cys Ser Lys Arg Tyr Leu Trp Gln Thr lle Met Lys Glu Val Arg Glu Gly Cys Ala Ala Val Leu Thr Ser His Arg Phe Trp Tyr Gln Asp Asp Ala Gly Leu He Lys <210> 4969 <211> 140 <212> PRT <213> Homo sapiens <400> 592 Met Tyr 11e Phe Phe Phe Leu Lys Gln Met Ser Phe Asp Pro Asn Leu Leu His Asn Asn Gly His Asn Gly Tyr Pro Asn Gly Thr Ser Ala 

Ala Leu Arg Glu Thr Gly Val 11e Glu Lys Leu Leu Thr Ser Tyr Gly Phe Ile Gln Cys Ser Glu Arg Gln Ala Arg Leu Phe Phe His Cys Ser Gln Tyr Asn Gly Asn Leu Gln Asp Leu Lys Val Gly Gly Asn Leu Ser Val Leu Leu Cys Lys Asn Val Ile Thr Lys Phe Val Leu His Ile Asn Leu Phe Met Ser Val Phe Gln Lys Val Leu Cys Lys Leu Lys His Phe Gly Leu Leu Val Val Leu Phe Ser Glu Glu Tyr Leu Tyr Lys Pro Ala Glu Ser Leu Lys Asp Tyr 11e Cys 11e Tyr Leu Gln 

<210> 4970

<211> 177

<212> PRT

<213> Homo sapiens

<400> 593

Met Ser Ser Glu Thr Pro Thr Ser Arg Gln Leu Ser Glu Tyr Leu Lys His Ala Lys Gly Arg Thr Arg Thr Ala lle Arg Asn Gly Gln Val Trp Glu Glu Ser Leu Lys Arg Leu Arg Gln Lys Ala Ser Leu Thr Asn Val Thr Asp Pro Ser Leu Asp Leu Thr Ser Leu Ser Leu Glu Val Gly Cys Gly Ala Pro Ala Pro Val Val Arg Cys Asp Pro Cys Ser Pro Tyr Arg Thr Ile Thr Gly Asp Cys Asn Asn Arg Trp Arg Gly Leu Gly Cys Gly 

Gly Arg Pro Phe Gln Pro Leu Arg Pro Ala Leu Pro Arg Pro Leu Ser

 Leu Gly His Ser Arg Gln Ile Cys His Cys Leu Ala His Leu Gly Trp

 115
 120
 125
 125
 125
 125

 Arg Ser His Leu Pro His Leu Leu Lys Ile Ala Arg Leu Gln Pro Ser
 130
 135
 140
 140
 140
 160

 Pro Ser Ser Pro Leu Cys Val Ser Gly Ser Gly Thr Phe Pro Arg Gly
 155
 160
 160
 160

 Gly Gly Ala Pro Arg Leu Gln Gly Val Gly Ala Val Gln Arg Pro Gln
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 170
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<210> 4971

<211> 930

<212> PRT

<213> Homo sapiens

<400> 594

Met Ala Gly Ala Ala Ala Ala Val Ala Ala Gly Ala Ala Ala Gly Ala

1 5 10 15

Ala Ala Ala Ala Val Ser Val Ala Ala Pro Gly Arg Ala Ser Ala Pro
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Pro Pro Pro Pro Pro Pro Val Tyr Cys Val Cys Arg Gln Pro Tyr Asp Val
35 40 45

Asn Arg Phe Met 11e Glu Cys Asp 11e Cys Lys Asp Trp Phe His Gly 55 Ser Cys Val Gly Val Glu Glu His His Ala Val Asp lle Asp Leu Tyr 70 65 75 80 His Cys Pro Asn Cys Ala Val Leu His Gly Ser Ser Leu Met Lys Lys 85 90 Arg Arg Asn Trp His Arg His Asp Tyr Thr Glu Ile Asp Asp Gly Ser 105 110 Lys Pro Val Gln Ala Gly Thr Arg Thr Phe 11e Lys Glu Leu Arg Ser 115 120 125

Arg Val Phe Pro Ser Ala Asp Glu Ile Ile Ile Lys Met His Gly Ser

	130					135					140				
Gln	Leu	Thr	Gln	Arg	Tyr	Leu	Glu	Lys	His	Gly	Phe	Asp	Val	Pro	He
145					150					155					160
Met	Val	Pro	Lys	Leu	Asp	Asp	Leu	Gly	Leu	Arg	Leu	Pro	Ser	Pro	Thr
				165					170					175	
Phe	Ser	Val	Met	Asp	Val	Glu	Arg	Tyr	Val	Gly	Gly	Asp	Lys	Val	Ile
			180					185					190		
Asp	Val	He	Asp	Val	Ala	Arg	Gln	Ala	Asp	Ser	Lys	Met	Thr	Leu	His
		195					200					205			
Asn	Tyr	Val	Lys	Tyr	Phe	Met	Asn	Pro	Asn	Arg	Pro	Lys	Val	Leu	Asn
	210					215					220				
Val	Пе	Ser	Leu	Glu	Phe	Ser	Asp	Thr	Lys	Met	Ser	Glu	Leu	Val	Glu
225					230					235					240
Val	Pro	Asp	He	Ala	Lys	Lys	Leu	Ser	Trp	Val	Glu	Asn	Tyr	Trp	Pro
				245					250					255	
Asp	Asp	Ser	Val	Phe	Pro	Lys	Pro	Phe	Val	Gln	Lys	Tyr	Cys	Leu	Met
			260					265					270		
Gly	Val	Gln	Asp	Ser	Tyr	Thr	Asp	Phe	His	He	Asp	Phe	Gly	Gly	Thr
		275					280					285			
Ser	Val	Trp	Tyr	His	Val	Leu	Trp	Gly	Glu	Lys	He	Phe	Tyr	Leu	He
	290					295					300				
Lys	Pro	Thr	Asp	Glu	Asn	Leu	Ala	Arg	Tyr	Glu	Ser	Trp	Ser	Ser	Ser
305					310					315					320
Val	Thr	Gln	Ser	Glu	Val	Phe	Phe	Gly	Asp	Lys	Val	Asp	Lys	Cys	Tyr
				325					330					335	
Lys	Cys	Val	Val	Lys	Gln	Gly	His	Thr	Leu	Phe	Val	Pro	Thr	Gly	Trp
			340					345					350		
He	His		Val	Leu	Thr	Ser		Asp	Cys	Met	Ala		G] y	Gly	Asn
		355					360					365			
Phe		His	Asn	Leu	Asn	He	Gly	Met	GIn	Leu		Cys	Tyr	Glu	Met
	370					375					380	_			
	Lys	Arg	Leu	Lys		Pro	Asp	Leu	Phe		Phe	Pro	Phe	Phe	
385	7.1	C	Tr.	101	390		,			395	0.1	Tr.I	,		400
Ala	11e	Cys	Irp		val	Ala	Lys	Asn		Leu	Glu	Thr	Leu		Ыu
,	4	C.		405	DI	63	D	6.1	410	т	,	W 3	C1	415	V 3
Leu	Arg	61u	Asp	61 y	Phe	Gln	Pro	Ыn	Ihr	lyr	Leu	val	GIn	ыу	va1

				420					425					430		
	Lys	Ala	Leu	His	Thr	Ala	Leu	Lys	Leu	Trp	Met	Lys	Lys	Glu	Leu	Val
			435					440					445			
	Ser	Glu	His	Ala	Phe	Glu	Пe	Pro	Asp	Asn	Val	Arg	Pro	Gly	His	Leu
		450					455					460				
•	He	Lys	Glu	Leu	Ser	Lys	Val	He	Arg	Ala	He	Glu	Glu	Glu	Asn	Gly
	465					470					475					480
	Lys	Pro	Val	Lys	Ser	Gln	Gly	Пe	Pro	He	Val	Cys	Pro	Val	Ser	Arg
					485					490					495	
	Ser	Ser	Asn	Glu	Ala	Thr	Ser	Pro	Tyr	His	Ser	Arg	Arg	Lys	Met	Arg
				500					505					510		
	Lys	Leu	Arg	Asp	His	Asn	Val	Arg	Thr	Pro	Ser	Asn	Leu	Asp	He	Leu
			515					520					525			
	Glu	Leu	His	Thr	Arg	Glu	Val	Leu	Lys	Arg	Leu	Glu	Met	Cys	Pro	Trp
		530					535					540				
	Glu	Glu	Asp	He	Leu	Ser	Ser	Lys	Leu	Asn	Gly	Lys	Phe	Asn	Lys	His
	545					550					555					560
	Leu	Gln	Pro	Ser	Ser	Thr	Val	Pro	Glu	Trp	Arg	Ala	Lys	Asp	Asn	Asp
					565					570					575	
	Leu	Arg	Leu	Leu	Leu	Thr	Asn	Gly	Arg	He	He	Lys	Asp	Glu	Arg	Gln
				580					585					590		
	Pro	Phe		Asp	Gln	Ser	Leu	Tyr	Thr	Ala	Asp	Ser	Glu	Asn	Glu	Glu
			595					600					605			
	Asp		Arg	Arg	Thr	Lys		Ala	Lys	Met	Lys		Glu	Glu	Ser	Ser
		610					615					620				
		Val	Glu	Gly	Val	Glu	His	Glu	Glu	Ser		Lys	Pro	Leu	Asn	
	625					630					635					640
	Phe	Phe	Thr	Arg		Lys	Ser	Glu	Leu	_	Ser	Arg	Ser	Ser		Tyr
					645		0.1			650	n	<i>(</i> ) 1		TC.	655	
	Ser	Asp	He		Glu	Ser	Glu	Asp		Gly	Pro	Glu	Cys		Ala	Leu
		0		660	T)	Œ1	0.1	0.1	665	61	0		0.1	670	(1)	,
	Lys	Ser		Phe	lhr	Thr	61u		Ser	Glu	Ser	Ser		Asp	61u	Lys
		C.3	675	1.7	TI	C		680	,	C1	. 6.1	C	685	V- 1		۸.
	Lys		Glu	11e	inr	Ser		Phe	Lys	Glu	61u		Asn	Val	мет	Arg
	Α	690	1	C 1	1	Son	695	1	D.	C	Δ	700	C1.	71.	D	71.
	11 ( 12)	400	1 011	1-10	1 1767	> 0 r	1 I D	1170	wo	> 0 12	11 30 00	- C 12		110	1/100	110

705					710					715					720
Lys	Arg	Glu	Cys	Pro	Thr	Ser	Thr	Ser	Thr	Glu	Glu	Glu	Ala	He	Gln
				725					730					735	
G1 y	Met	Leu	Ser	Met	Ala	Gly	Leu	His	Tyr	Ser	Thr	Cys	Leu	Gln	Arg
			740					745					750		
Gln	Ile	Gln	Ser	Thr	Asp	Cys	Ser	G1 y	Glu	Arg	Asn	Ser	Leu	Gln	Asp
		755					760					765			
Pro	Ser	Ser	Cys	His	Gly	Ser	Asn	His	Glu	Val	Arg	Gln	Leu	Tyr	Arg
	770					775					780				
Tyr	Asp	Lys	Pro	Val	Glu	Cys	Gly	Tyr	His	Val	Lys	Thr	Glu	Asp	Pro
785					790					795					800
Asp	Leu	Arg	Thr	Ser	Ser	Trp	lle	Lys	Gln	Phe	Asp	Thr	Ser	Arg	Phe
				805					810					815	
His	Pro	Gln	Asp	Leu	Ser	Arg	Ser	Gln	Lys	Cys	He	Arg	Lys	Glu	Gly
			820					825					830		
Ser	Ser	Glu	lle	Ser	Gln	Arg	Val	Gln	Ser	Arg	Asn	Tyr	Val	Asp	Ser
		835					840					845			
Ser	Gly	Ser	Ser	Leu	Gln	Asn	Gly	Lys	Tyr	Met	Gln	Asn	Ser	Asn	Leu
	850					855					860				
Thr	Ser	Gly	Ala	Cys	Gln	Ile	Ser	Asn	Gly	Ser	Leu	Ser	Pro	Glu	Arg
865					870					875					880
Pro	Val	Gly	Glu	Thr	Ser	Phe	Ser	Val	Pro	Leu	His	Pro	Thr	Lys	Arg
				885					890					895	
Pro	Ala	Ser	Asn	Pro	His	Leu	Ser	Ala	Thr	Arg	Gln	Gln	Lys	Val	Asn
			900					905					910		
Val	Gln	Lys	Lys	Glu	Trp	Gln	Gln	Pro	Asn	Asn	Val	Leu	Gly	Arg	Ser
		915					920					925			
Leu	Ser														
	930														

<210> 4972

<211> 755

<212> PRT

<213> Homo sapiens

<400	)> 59	<del>)</del> 5													
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Trp	Arg	Ser	Phe	Ser	Leu	Asn	Ser	Glu	Gly	Ala	Glu	Arg	Met	Ala	Thr
			20					25					30		
Ser	Tyr	Asp	Phe	His	Ser	Glu	Ser	Gly	Leu	Phe	Leu	Phe	Gln	Ala	Ser
		35					40					45			
Asn	Ser	Leu	Phe	His	Cys	Arg	Asp	Gly	Gly	Lys	Asn	Gly	Phe	Met	Val
	50					55					60				
Ser	Pro	Met	Lys	Pro	Leu	Glu	Ile	Lys	Thr	Gln	Cys	Ser	Gly	Pro	Arg
65					70					75					80
Met	Asp	Pro	Lys	He	Cys	Pro	Ala	Asp	Pro	Ala	Phe	Phe	Ser	Phe	He
				85					90					95	
Asn	Asn	Ser	Asp	Leu	Trp	Val	Ala	Asn	He	Glu	Thr	Gly	Glu	Glu	Arg
			100					105					110		
Arg	Leu	Thr	Phe	Cys	His	Gln	Gly	Leu	Ser	Asn	Val	Leu	Asp	Asp	Pro
		115					120					125			
Lys	Ser	Ala	Gly	Val	Ala	Thr	Phe	Val	Ile	G1n	Glu	Glu	Phe	Asp	Arg
	130					135					140				
Phe	Thr	Gly	Tyr	Trp	Trp	Cys	Pro	Thr	Ala	Ser	Trp	Glu	Gly	Ser	Glu
145					150					155					160
Gly	Leu	Lys	Thr	Leu	Arg	He	Leu	Tyr	Glu	Glu	Val	Asp	Glu	Ser	Glu
				165					170					175	
Val	Glu	Val	He	His	Val	Pro	Ser	Pro	Ala	Leu	Glu	G] u	Arg	Lys	Thr
			180					185					190		
Asp	Ser	Tyr	Arg	Tyr	Pro	Arg	Thr	Gly	Ser	Lys	Asn	Pro	Lys	Ile	Ala
		195					200					205			
Leu	Lys	Leu	Ala	Glu	Phe	Gln	Thr	Asp	Ser	G1n	G1y	Lys	He	Val	Ser
	210					215					220				
	Gln	Glu	Lys	Glu	Leu	Val	Gln	Pro	Phe		Ser	Leu	Phe	Pro	
225					230					235					240
Val	Glu	Tyr	He		Arg	Ala	Gly	Trp		Arg	Asp	Gly	Lys		Ala
				245					250					255	
Trp	Ala	Met		Leu	Asp	Arg	Pro	Gln	Gln	Trp	Leu	Gln		Va]	Leu
			260					265					270		

Leu	Pro	Pro	Ala	Leu	Phe	Ile	Pro	Ser	Thr	Glu	Asn	Glu	Glu	Gln	Arg
		275					280					285			
Leu	Ala	Ser	Ala	Arg	Ala	Val	Pro	Arg	Asn	Val	Gln	Pro	Tyr	Val	Val
	290					295					300				
Tyr	Glu	Glu	Val	Thr	Λsn	Val	Trp	He	Asn	Val	His	Asp	He	Phe	Tyr
305					310					315					320
Pro	Phe	Pro	Gln	Ser	Glu	Gly	Glu	Asp	Glu	Leu	Cys	Phe	Leu	Arg	Ala
				325					330					335	
Asn	Glu	Cys	Lys	Thr	Gly	Phe	Cys	His	Leu	Tyr	Lys	Val	Thr	Ala	Val
			340					345					350		
Leu	Lys	Ser	Gln	Gly	Tyr	Asp	Trp	Ser	Glu	Pro	Phe	Ser	Pro	Gly	Glu
		355					360					365			
Asp	Glu	Phe	Lys	Cys	Pro	lle	Lys	Glu	Glu	He	Ala	Leu	Thr	Ser	Gly
	370					375					380				
Glu	Trp	Glu	Val	Leu	Ala	Arg	His	Gly	Ser	Lys	He	Trp	Val	Asn	Glu
385					390					395					400
Glu	Thr	Lys	Leu	Val	Tyr	Phe	Gln	Gly	Thr	Lys	Asp	Thr	Pro	Leu	Glu
				405					410					415	
His	His	Leu	Tyr	Val	Val	Ser	Tyr	Glu	Ala	Ala	Gly	Glu	lle	Val	Arg
			420					425					430		
Leu	Thr	Thr	Pro	Gly	Phe	Ser	His	Ser	Cys	Ser	Met	Ser	Gln	Asn	Phe
		435					440					445			
Asp	Met	Phe	Val	Ser	His	Tyr	Ser	Ser	Val	Ser	Thr	Pro	Pro	Cys	Val
	450					455					460				
His	Val	Tyr	Lys	Leu	Ser	Gly	Pro	Asp	Asp	Asp	Pro	Leu	His	Lys	Gln
465					470					475					480
Pro	Arg	Phe	Trp	Ala	Ser	Met	Met	Glu	Ala	Ala	Ser	Cys	Pro	Pro	Asp
				485			•		490					495	
Tyr	Val	Pro	Pro	Glu	He	Phe	His	Phe	His	Thr	Arg	Ser	Asp	Val	Arg
			500					505					510		
Leu	Tyr	Gly	Met	He	Tyr	Lys	Pro	His	Ala	Leu	Gln	Pro	Gly	Lys	Lys
		515					520					525			
His	Pro	Thr	Val	Leu	Phe	Val	Tyr	Gly	Gly	Pro	Gln	Val	Gln	Leu	Val
	530					535					540				
Asn	Asn	Ser	Phe	Lys	Gly	11e	Lys	Tyr	Leu	Arg	Leu	Asn	Thr	Leu	Ala
545					550					555					560

Ser Leu Gly Tyr Ala Val Val 11e Asp Gly Arg Gly Ser Cys Gln Arg Gly Leu Arg Phe Glu Gly Ala Leu Lys Asn Gln Met Gly Gln Val Glu Ile Glu Asp Gln Val Glu Gly Pro Gln Phe Val Ala Glu Lys Tyr Gly Phe Ile Asp Leu Ser Arg Val Ala Ile His Gly Trp Ser Tyr Gly Gly Phe Leu Ser Leu Met Gly Leu Ile His Lys Pro Gln Val Phe Lys Val Ala Ile Ala Gly Ala Pro Val Thr Val Trp Met Ala Tyr Asp Thr Gly Tyr Thr Glu Arg Tyr Met Asp Val Pro Glu Asn Asn Gln His Gly Tyr Glu Ala Gly Ser Val Ala Leu His Val Glu Lys Leu Pro Asn Glu Pro Asn Arg Leu Leu Ile Leu His Gly Phe Leu Asp Glu Asn Val His Phe Phe His Thr Asn Phe Leu Val Ser Gln Leu Ile Arg Ala Gly Lys Pro Tyr Gln Leu Gln Ile Tyr Pro Asn Glu Arg His Ser Ile Arg Cys Pro Glu Ser Gly Glu His Tyr Glu Val Thr Leu Leu His Phe Leu Gln Glu Tyr Leu 

<210> 4973

<211> 268

<212> PRT

<213> Homo sapiens

<400> 596

Met Ala Ala Ala Ile Thr Asp Met Ala Asp Leu Glu Glu Leu Ser Arg

1 5 10 15

Leu	Ser	Pro	Leu	Pro	Pro	G1 y	Ser	Pro	G1 y	Ser	Ala	Ala	Arg	Gly	Arg
			20					25					30		
Ala	Glu	Pro	Pro	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu
		35					40					45			
Ala	Glu	Ala	Glu	Ala	Val	Ala	Ala	Leu	Leu	Leu	Asn	Gly	Gly	Ser	Gly
	50					55					60				
Gly	Gly	Gly	Val	Gly	Gly	Gly	Glu	Ala	Glu						
65					70					75					80
Thr	Met	Ser	Glu	Pro	Ser	Pro	Glu	Ser	Ala	Ser	Gln	Ala	Gly	Glu	Asp
				85					90					95	
Glu	Asp	Glu	Glu	Glu	Asp	Asp	Glu	Glu	Glu	Glu	Asp	Glu	Ser	Ser	Ser
			100					105					110		
Ser	Gly	Gly	Gly	Glu	Glu	Glu	Ser	Ser	Ala	Glu	Ser	Leu	Val	Gly	Ser
		115					120					125			
Ser	Gly	Gly	Ser	Ser	Ser	Asp	Glu	Thr	Arg	Ser	Leu	Ser	Pro	Gly	Ala
	130					135					140				
Ala	Ser	Ser	Ser	Ser	Gly	Asp	Gly	Asp	Gly	Lys	Glu	G1 y	Leu	Glu	Glu
145					150					155					160
Pro	Lys	Gly	Pro	Arg	Gly	Ser	Gln	Gly	Gly	G1 y	Gly	Gly	Gly	Ser	Ser
				165					170					175	
Ser	Ser	Ser	Val	Val	Ser	Ser	Gly	G1 y	Asp	Glu	Gly	Tyr	Gly	Thr	Gly
			180					185					190		
Gly	Gly	Gly	Ser	Ser	Ala	Thr	Ser	Gly	Gly	Arg	Arg	Gly	Ser	Leu	Glu
		195					200					205			
Met	Ser	Ser	Asp	Gly	Glu	Pro	Leu	Ser	Arg	Met	Asp	Ser	Glu	Asp	Ser
	210					215					220				
He	Ser	Ser	Thr	He	Met	Asp	Val	Asp	Ser	Thr	lle	Ser	Ser	Gly	Arg
225					230					235					240
Ser	Thr	Pro	Ala	Met	Met	Asn	Gly	Gln	Gly	Ser	Thr	Thr	Ser	Ser	Ser
				245					250					255	
Lys	Asn	He	Ala	Tyr	Asn	Cys	Cys	Trp	Asp	Gln	Cys				
			260					265							

<210> 4974 <211> 160 <212> PRT

<213> Homo sapiens

<400> 597

Met Leu Gly Glu Arg Pro Leu Cys Leu Thr Pro Gly Ala Lys Leu Gly
1 5 10 15

Leu His His Trp Ile Ile Arg Cys Phe Gln Arg Arg Pro Ser Pro His
20 25 30

Pro Asp Gln Gly Asn Trp Asp Asp Val Gly Pro Leu Thr Leu Ser Asp
35 40 45

Met Gln Pro Gly Trp Arg Leu Gly Gln Pro Pro Cys Arg Ser Glu Ser
50 55 60

Phe Ser Pro Cys His Leu Lys Ser Lys Ser Leu Leu Thr Gln Ala Leu 65 70 75 80

Pro Gly Met Cys Ser Pro Ala Thr Glu Pro Glu Ala Ala Leu Leu Leu 85 90 95

Ser Pro Val Gly Thr Ala Phe Gln Thr Gln Asn Thr Glu Phe Thr Ala 100 105 110

Ser Phe Gly Ile Phe Pro Asn Arg Leu Thr Val Pro Ile Ala Ser Asp 115 120 125

Pro Phe Gln Tyr Ser Cys Thr Arg Asn Val Met Val Lys Asn Lys Lys 130 135 140

Pro Pro Val Met Glu Gly Arg Asn Met Asn Gln Leu Lys Ala Phe His 145 150 155 160

<210> 4975

<211> 411

<212> PRT

<213> Homo sapiens

<400> 598

Met Thr Glu Met Ser Glu Lys Glu Asn Glu Pro Asp Asp Ala Ala Thr

1 5 10 15

His Ser Pro Pro Gly Thr Val Ser Ala Leu Gln Glu Thr Lys Leu Gln

20 25 30

Arg	Phe	Lys	Arg	Ser	Leu	Ser	Leu	Lys	Thr	Ile	Leu	Arg	Ser	Lys	Ser
		35					40					45			
Leu	Glu	Asn	Phe	Phe	Leu	Arg	Ser	Gly	Ser	Glu	Leu	Lys	Cys	Pro	Thr
	50					55					60				
Glu	Val	Leu	Leu	Thr	Pro	Pro	Thr	Pro	Leu	Pro	Pro	Pro	Ser	Pro	Pro
65					70					75					80
Pro	Thr	Ala	Ser	Asp	Arg	Gly	Leu	Ala	Thr	Pro	Ser	Pro	Ser	Pro	Cys
				85					90					95	
Pro	Val	Pro	Arg	Pro	Leu	Ala	Ala	Leu	Lys	Pro	Val	Arg	Leu	His	Ser
			100					105					110		
Phe	Gln	Glu	His	Val	Phe	Lys	Arg	Ala	Ser	Pro	Cys	Glu	Leu	Cys	His
		115					120					125			
Gln	Leu	He	Val	Gly	Asn	Ser	Lys	Gln	Gly	Leu	Arg	Cys	Lys	Met	Cys
	130					135					140				
Lys	Val	Ser	Val	His	Leu	Trp	Cys	Ser	Glu	Glu	He	Ser	His	Gln	Gln
145					150					155					160
Cys	Pro	Gly	Lys	Thr	Ser	Thr	Ser	Phe	Arg	Arg	Asn	Phe	Ser	Ser	Pro
				165					170					175	
Leu	Leu	Val	His	Glu	Pro	Pro	Pro	Val	Cys	Ala	Thr	Ser	Lys	Glu	Ser
			180					185					190		
Pro	Pro	Thr	Gly	Asp	Ser	Gly	Lys	Val	Asp	Pro	Val	Tyr	Glu	Thr	Leu
		195					200					205			
Arg	Tyr	Gly	Thr	Ser	Leu	Ala	Leu	Met	Asn	Arg	Ser	Ser	Phe	Ser	Ser
	210					215					220				
Thr	Ser	Glu	Ser	Pro	Thr	Arg	Ser	Leu	Ser	Glu	Arg	Asp	Glu	Leu	Thr
225					230					235					240
Glu	Asp	Gly	Glu	Gly	Ser	lle	Arg	Ser	Ser	Glu	Glu	Gly	Pro	Gly	Asp
				245					250					255	
Ser	Ala	Ser		Val	Phe	Thr	Ala		Ala	Glu	Ser	Glu	Gly	Pro	Gly
			260					265					270		
Pro	Glu		Lys	Ser	Pro	G1 y		Gln	Leu	Pro	Lys	Ala	Thr	Leu	Arg
		275					280					285			
Lys		Val	G1y	Pro	Met		Ser	Tyr	Va]	Ala		Tyr	Lys	Phe	Leu
	290					295					300				
	G1n	Glu	Asn	Asn		Leu	Ala	Leu	Gln		Gly	Asp	Arg	lle	
305					310					315					320

Leu Val Asp Asp Ser Asn Glu Asp Trp Trp Lys Gly Lys Ile Gly Asp Arg Val Gly Phe Phe Pro Ala Asn Phe Val Gln Arg Val Arg Pro Gly Glu Asn Val Trp Arg Cys Cys Gln Pro Phe Ser Gly Asn Lys Glu Gln Gly Tyr Met Ser Leu Lys Glu Asn Gln Ile Cys Val Gly Val Gly Arg Ser Lys Asp Ala Asp Gly Phe Ile Arg Val Ser Ser Gly Lys Lys Arg Gly Leu Val Pro Val Asp Ala Leu Thr Glu Ile 

<210> 4976

<211> 129

<212> PRT

<213> Homo sapiens

<400> 599

Met Leu Ser Ala Gly Gly Cys Ile Leu Leu Pro Val His Ile Val Cys Ala Trp Asp Gly His Glu Ser Gly Gly Arg Ala Gly Val Leu Ala Leu Gly Tyr Phe Gly Glu Thr Ile Arg Phe Lys Glu Gly Asn Thr Phe Ser Gly Pro Val Pro Gln Asn Thr Thr 11e Thr Arg Gly Arg His Leu Ala Glu Leu Ser Pro Thr Gly Thr Ser Gly Pro Trp Phe Leu His Pro Gln Ser Ala Ser Phe His Ser Arg Gln Asn Gln Gly Ile Phe Gln Gly Gln Val Ser His Pro Leu Gly Ala Gly Ile Leu Ser His Ser Lys Thr Asn Phe Gln Val Pro Gly Leu Leu Gly Asn Pro Lys Arg Leu Ser Pro Ala

Glu

<210> 4977

<210> 4978 <211> 183 <212> PRT

<213> Homo sapiens

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<211> 156
<212> PRT
<213> Homo sapiens
<400> 600
Met Gln Thr Glu Asp Ile Arg Leu Glu Pro Asp Leu Tyr Glu Ala Cys
                                     10
Lys Ser Asp Ile Lys Asn Phe Cys Ser Ala Val Gln Tyr Gly Asn Ala
             20
                                 25
                                                      30
Gln lle Ile Glu Cys Leu Lys Glu Asn Lys Lys Gln Leu Ser Thr Arg
                             40
                                                  45
Cys His Gln Lys Val Phe Lys Leu Gln Glu Thr Glu Met Met Asp Pro
                         55
                                              60
Glu Leu Asp Tyr Thr Leu Met Arg Val Cys Lys Gln Met Ile Lys Arg
                     70
 65
                                          75
                                                              80
Phe Cys Pro Glu Ala Asp Ser Lys Thr Met Leu Gln Cys Leu Lys Gln
                                      90
Asn Lys Asn Ser Glu Leu Met Asp Pro Lys Cys Lys Gln Met Ile Thr
            100
                                 105
                                                     110
Lys Arg Gln Ile Thr Gln Asn Thr Gly Lys Ile Leu Ala Trp Leu Ser
        115
                            120
                                                 125
Trp Pro Arg Gly Val Ser Glu Lys Glu Phe Ser Gly Cys Arg Val Thr
                        135
Cys Ser Asn Ser Gln Gly Phe Val Ala Trp Glu Phe
145
                    150
                                         155
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Met Glu Leu Ala Ala Leu Gly Leu Ser Pro Cys Pro Arg Leu Leu His Ala Glu Leu Leu Pro Gly Leu Leu Thr Val Phe Ser Leu Arg Phe Leu Gln Asp Tyr Gly Gly Tyr Leu Ser Thr Tyr Ile Leu Pro Ala Lys Gly Glu Asn Gln Gly Gln Thr Phe Thr Cys Gly Ser Ala Leu Ser Pro Ile Thr Asp Phe Lys Leu Tyr Ala Ser Ala Phe Ser Glu Arg Tyr Leu Gly Leu His Gly Thr Arg Asp Asn Ala Val Pro Ala Ala Ala Pro Pro Pro Gly Ala Arg Glu Thr Gly Thr Pro Arg Pro Leu Pro Gln Gly Thr Glu Gln Arg Met Val Ala Ala Gly Pro Thr Arg Ala His Arg Thr Pro Ala Pro Arg Phe Gln Pro Pro Ser Gly Ser Met Arg Pro Ala His Thr Ser Leu Cys Val Pro Val Arg Asp Ile Thr Pro Cys Leu Thr Ser Gln Cys His Gly Arg Ser Ser Tyr Ser Thr lle Val Leu Ala Val Arg Val His lle Trp Ala Cys Tyr Phe Leu <210> 4979 <211> 579 <212> PRT <213> Homo sapiens <400> 602

Met Lys Asp Lys Ser Asn Gly Leu Glu Ser Gln Val Asn Gln Cys Asp

<400> 601

Lys	Met	Leu	Gly	Gly	Asp	Ala	Leu	Val	Thr	Asp	Leu	Leu	Val	Asp	Phe
			20					25					30		
Cys	Gly	Ser	Arg	Ser	Gly	Val	Glu	He	Pro	Arg	Thr	Pro	Gln	Leu	Tyr
		35					40					45			
Val	Ala	His	Glu	He	Gly	Thr	He	Lys	Thr	Val	Thr	Pro	Pro	Glu	Asp
	50					55					60				
Arg	Asp	Ser	Glu	Ser	Gly	Val	Val	Gly	Gly	Gln	Gly	Thr	Leu	Gln	Glu
65					70					75					80
Pro	Gly	Phe	G1y	Glu	Ala	Ser	Glu	Ala	He	Ser	Val	Ser	Arg	Asn	Arg
				85					90					95	
Gln	Pro	He	Pro	Leu	Leu	Met	Asn	Lys	Glu	Asn	Ser	Thr	Lys	Thr	Ser
			100					105					110		
Lys	Val	Glu	Leu	Thr	Leu	Ala	Ser	Pro	Tyr	Met	Lys	Gln	Glu	Lys	Glu
		115					120					125			
Glu		Lys	Glu	Gly	Phe	-	Glu	Ser	Asp	Phe	Ser	Asp	Gly	Asn.	Thr
	130					135					140				
	Ser	Asn	Ala	Glu		Trp	Arg	Asn	Pro		Ser	Ser	Glu	Glu	Glu
145					150					155					160
Pro	Ser	Pro	Val		Lys	Thr	Leu	Glu		Ser	Ala	Ala	Arg		Met
Б		,		165	6.1		- 1		170					175	
Pro	Ser	Lys		Leu	Glu	Asp	He		Ser	Asp	Ser	Ser		GIn	Ala
1	V 1	Δ	180	C1	D	C1	C1	185	17 3		C	4.1	190		
Lys	vai	Asp	Asn	GIN	rro	Glu	200	Leu	vai	Arg	Ser		GIU	Asp	Asp
Clu.	Luc	195	Acn	Cln	Lvc	Dro		Thr	Acn	Clu	Cuc	205	Dro	Ana	116
oru	210	Pro	nsp	OIII	rys	215	101	1111	лы	oru	220	vai	110	ni g	116
Ser		Val	Pro	Thr	Gln		Asn	Asn	Pro	Phe		His	Pro	Asn	lvs
225		, (,1)	110	, , , , ,	230	110	пор	711,711	110	235	501	1113	110	пор	240
	Lvs	Arg	Met	Ser		Ser	Val	Pro	Ala		Leu	G1n	Asp	Glu	
		0		245	•				250					255	_
Ser	Gly	Ser	Val		Ser	Val	Tyr	Ser		Asp	Phe	G1 y	Asn		Glu
			260				•	265	·	·			270		
Val	Lys	Gly	Asn	He	Gln	Phe	Ala	He	Glu	Tyr	Val	Glu	Ser	Leu	Lys
		275					280					285			
Glu	Leu	His	Va]	Phe	Val	Ala	Gln	Cys	Lys	Asp	Leu	Ala	Ala	Val	Asp
	290					295					300				

Val	Lys	Lys	Gln	Arg	Ser	Asp	Pro	Tyr	Val	Lys	Ala	Tyr	Leu	Leu	Pro
305					310					315					320
Asp	Lys	Gly	Lys	Met	Gly	Lys	Lys	Lys	Thr	Leu	Val	Val	Lys	Lys	Thr
				325					330					335	
Leu	Asn	Pro	Val	Tyr	Asn	Glu	11e	Leu	Arg	Tyr	Lys	He	Glu	Lys	Gln
			340					345					350		
He	Leu	Lys	Thr	Gln	Lys	Leu	Asn	Leu	Ser	Пе	Trp	His	Arg	Asp	Thr
		355					360					365			
Phe	Lys	Arg	Asn	Ser	Phe	Leu	G] y	Glu	Val	${\sf Glu}$	Leu	Asp	Leu	Glu	Thr
	370					375					380				
Trp	Asp	Trp	Asp	Asn	Lys	Gln	Asn	Lys	Gln	Leu	Arg	Trp	Tyr	Pro	Leu
385					390					395					400
Lys	Arg	Lys	Thr	Ala	Pro	Val	Ala	Leu	Glu	Ala	Glu	Asn	Arg	Gly	Glu
				405					410					415	
Met	Lys	Leu	Ala	Leu	Gln	Tyr	Val	Pro	Glu	Pro	Val	Pro	Gly	Lys	Lys
			420					425					430		
Leu	Pro	Thr	Thr	Gly	Glu	Val	His	lle	Trp	Val	Lys	Glu	Cys	Leu	Asp
		435					440					445			
Leu	Pro	Leu	Leu	Arg	Gly	Ser	His	Leu	Asn	Ser	Phe	Val	Lys	Cys	Thr
	450					455					460				
He	Leu	Pro	Asp	Thr	Ser	Arg	Lys	Ser	Arg	Gln	Lys	Thr	Arg	Ala	Val
465					470					475					480
Gly	Lys	Thr	Thr	Asn	Pro	He	Phe	Asn	His	Thr	Met	Val	Tyr	Asp	Gly
				485					490					495	
Phe	Arg	Pro	Glu	Asp	Leu	Met	Glu	Ala	Cys	Val	Glu	Leu	Thr	Val	Trp
			500					505					510		
Asp	His	Tyr	Lys	Leu	Thr	Asn	Gln	Phe	Leu	Gly	Gly	Leu	Arg	He	Gly
		515					520					525			
Phe	Gly	Thr	Gly	Lys	Ser	Tyr	Gly	Thr	Glu	Val	Asp	Trp	Met	Asp	Ser
	530					535					540				
Thr	Ser	Glu	Glu	Val	Ala	Leu	Trp	Glu	Lys	Met	Va1	Asn	Ser	Pro	Asn
545					550					555					560
Thr	Trp	He	Glu	Ala	Thr	Leu	Pro	Leu	Arg	Met	Leu	Leu	He	Ala	Lys
				565					570					575	
He	Ser	Lys													

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<211> 261
<212> PRT
<213> Homo sapiens
<400> 603
Met Arg Ser Leu Leu Leu Ser Ala Phe Cys Leu Leu Glu Ala Ala
 1
                  5
                                     10
                                                         15
Leu Ala Ala Glu Val Lys Lys Pro Ala Ala Ala Ala Ala Pro Gly Thr
                                 25
Ala Glu Lys Leu Ser Pro Lys Ala Ala Thr Leu Ala Glu Arg Ser Ala
                             40
Gly Leu Ala Phe Ser Leu Tyr Gln Ala Met Ala Lys Asp Gln Ala Val
                         55
                                             60
Glu Asn Ile Leu Val Ser Pro Val Val Val Ala Ser Ser Leu Gly Leu
                                         75
                     70
Val Ser Leu Gly Gly Lys Ala Thr Thr Ala Ser Gln Ala Lys Ala Val
                 85
                                     90
                                                         95
Leu Ser Ala Glu Gln Leu Arg Asp Glu Glu Val His Ala Gly Leu Gly
                                105
Glu Leu Leu Arg Ser Leu Ser Asn Ser Thr Ala Arg Asn Val Thr Trp
        115
                            120
Lys Leu Gly Ser Arg Leu Tyr Gly Pro Ser Ser Val Ser Phe Ala Asp
    130
                        135
                                            140
Asp Phe Val Arg Ser Ser Lys Gln His Tyr Asn Cys Glu His Ser Lys
                    150
                                       155
lle Asn Phe Arg Asp Lys Arg Ser Ala Leu Gln Ser lle Asn Glu Trp
                165
                                    170
                                                        175
Ala Ala Gln Thr Thr Asp Gly Lys Leu Pro Glu Val Thr Lys Asp Val
                                185
Glu Arg Thr Asp Gly Ala Leu Leu Val Asn Ala Met Phe Phe Lys Arg
        195
                            200
                                                205
Glu Ser Gly Ala Arg Ser Gly Val Leu Leu Leu Pro Gly Pro Pro
    210
                        215
                                            220
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<210> 4980

Ala Arg Val Arg Thr Thr Phe Arg Ala Leu His Ser Ser Leu Pro Leu Ile Tyr Ala Val Thr Thr Gln Gly Gly Arg Thr Val Thr Gln Leu Phe Val Gln Thr Gly Asn 

<210> 4981 <211> 281 <212> PRT <213> Homo sapiens

<400> 604 Met Ala Glu Ala Ala Pro Ala Arg Asp Pro Glu Thr Asp Lys His Thr Glu Asp Gln Ser Pro Ser Thr Pro Leu Pro Gln Pro Ala Ala Glu Lys Asn Ser Tyr Leu Tyr Ser Thr Glu IIe Thr Leu Trp Thr Val Val Ala Ala Ile Gln Ala Leu Glu Lys Lys Val Asp Ser Cys Leu Thr Arg Leu Leu Thr Leu Glu Gly Arg Thr Gly Thr Ala Glu Lys Lys Leu Ala Asp Cys Glu Lys Thr Ala Val Glu Phe Gly Asn Gln Leu Glu Gly Lys Trp Ala Val Leu Gly Thr Leu Leu Gln Glu Tyr Gly Leu Leu Gln Arg Arg Leu Glu Asn Val Glu Asn Leu Leu Arg Asn Arg Asn Phe Trp lle Leu Arg Leu Pro Pro Gly Ser Lys Gly Glu Ala Pro Lys Val Pro Val Thr Phe Asp Asp Val Ala Val Tyr Phe Ser Glu Leu Glu Trp Gly Lys Leu 

Glu Asp Trp Gln Lys Glu Leu Tyr Lys His Val Met Arg Gly Asn Tyr

Glu Thr Leu Val Ser Leu Asp Tyr Ala Ile Ser Lys Pro Asp Ile Leu Thr Arg Ile Glu Arg Gly Glu Glu Pro Cys Leu Asp Arg Trp Gly Gln Glu Lys Gly Asn Glu Val Glu Val Gly Arg Pro Arg Met Met Gly Thr Gly Leu Pro Pro Tyr Pro Glu His Leu Thr Ser Pro Leu Ser Pro Ala Gln Glu Glu Leu Lys Glu Gly Gln Ala Pro Lys Gln Gln Gln Asp Ser Glu Ala Arg Val Ala Pro Ala Gly Pro Glu Ala Gly Leu Ala Leu Arg Thr Asp Leu Gln Gly Glu Ala Gln Ile 

<210> 4982

<211> 126

<212> PRT

<213> Homo sapiens

<400> 605

Met Ser Pro Pro Pro Leu Leu Phe Pro Gly Pro Ser His His Wal Ser Pro Gly Leu Leu His Ala Pro Pro Thr Trp Ser Pro His Phe Cys Pro Gly Arg Gly Trp Cys Val Leu His Pro Ala Thr Gln Gln Ser Glu Gly Ser Ser Tyr Asn Ile Ser Gln Ile Thr Ser Leu Phe Ala Gln Asn

Pro Ala Met Ala Pro Ile Ser Phe Arg Val Asn Ser Lys Ala Pro Tyr 

Leu Pro Thr Ala Pro His Ser Arg Thr Phe Pro Pro Val Val Leu Pro 

Leu Val Pro Ser Ile Pro Ala Thr Gly Ile Ser Leu Leu Ala Pro Glu 

Leu Thr Arg Tyr Gly Ala Ala Ser Gly Pro Leu His Leu Gln 115 120 125

<210> 4983

<211> 266

<212> PRT

<213> Homo sapiens

<400> 606

Met Val Met Ala Asp Gln Asn Gln Val Trp Val Gly Ser Glu Asp Ser

1 5 10 15

Val Ile Tyr Ile Ile Asn Val His Ser Met Ser Cys Asn Lys Gln Leu 20 25 30

Thr Ala His Cys Ser Ser Val Thr Asp Leu Ile Val Gln Asp Gly Gln
35 40 45

Glu Ala Pro Ser Asn Val Tyr Ser Cys Ser Met Asp Gly Met Val Leu
50 55 60

Val Trp Asn Val Ser Thr Leu Gln Val Thr Ser Arg Phe Gln Leu Pro
65 70 75 80

Arg Gly Gly Leu Thr Ser Ile Arg Leu His Gly Gly Arg Leu Trp Cys

85

90

95

Cys Thr Gly Asn Ser Ile Met Val Met Lys Met Asn Gly Ser Leu His 100 105 110

Gln Glu Leu Lys 11e Glu Glu Asn Phe Lys Asp Thr Ser Thr Ser Phe 115 120 125

Leu Ala Phe Gln Leu Leu Pro Glu Glu Glu Gln Leu Trp Ala Ala Cys 130 135 140

Ala Gly Arg Ser Glu Val Tyr Ile Trp Ser Leu Lys Asp Leu Ala Gln 145 150 155 160

Pro Pro Gln Arg Val Pro Leu Glu Asp Cys Ser Glu lle Asn Cys Met 165 170 175

lle Arg Val Lys Lys Gln Val Gly Trp Arg Ala Arg His Pro Gln His 180 185 190

Pro Arg Gln Val Ser Leu Ala Leu Ala Ala Ser Pro Cys Ser Arg Glu 195 200 205 Pro Ala Ala Arg Pro Arg Ala Leu Leu Pro Ser Pro Leu Arg Val Pro Leu Leu Thr Gly Thr Cys Arg Val Gly Ala Asn Gly Pro Thr Gly His His Val Leu Val Ser Trp Cys Gly Pro Ser Thr Pro Gln Arg 11e Pro Pro Asn Trp Met Ala Ser Asn Asp Arg Thr 

<210> 4984

<211> 251

<212> PRT

<213> Homo sapiens

<400> 607

Met Gly Met Gly Thr Leu Ala Trp Gly Gln Pro Leu Leu Pro Arg Cys Leu Cys Pro Arg Ala Gly Gln Arg Gln Pro Val Val Thr Ala Ala Val Ala Ala Pro Gln Leu Thr Met Asn Asp Phe Ser Val His Arg Ile Ile Gly Arg Gly Gly Phe Gly Glu Val Tyr Gly Cys Arg Lys Ala Asp Thr Gly Lys Met Tyr Ala Met Lys Cys Leu Asp Lys Lys Arg Ile Lys Met Lys Gln Gly Glu Thr Leu Ala Leu Asn Glu Arg Ile Met Leu Ser Leu Val Ser Thr Gly Asp Cys Pro Phe 11e Val Cys Met Ser Tyr Ala Phe His Thr Pro Asp Lys Leu Ser Phe Ile Leu Asp Leu Met Asn Gly Gly Asp Leu His Tyr His Leu Ser Gln His Gly Val Phe Ser Glu Ala Asp 

Met Arg Phe Tyr Ala Ala Glu Ile Ile Leu Gly Leu Glu His Met His

Asn Arg Phe Val Val Tyr Arg Asp Leu Lys Val Ser Ala Pro Ala Val Pro Arg Leu Asp Leu Arg Gly Cys Pro Leu Leu Pro Leu Asp Ile Pro Ala Thr Arg Pro Arg Gly Val Gly Leu Leu Gly His Gly Arg Pro Val Ser Ser His Leu Arg Pro Cys Pro Ser His Arg Ala Thr Leu Trp Val Gln Val Val Ala Gly Asp Arg Arg Glu Asp Pro His Leu Cys Pro Phe Phe Gly Tyr Pro Ser Ser Ser Pro Val Lys Gln 

<210> 4985

<211> 350

<212> PRT

<213> Homo sapiens

<400> 608

Met Met Glu Ser Ser Glu Leu Thr Pro Lys Gln Glu Ile Phe Lys Gly Ser Glu Ser Ser Asn Ser Thr Ser Gly Gly Leu Phe Gly Val Val Pro Gly Gly Thr Glu Thr Gly Asp Val Cys Glu Asp Thr Phe Lys Glu Leu Glu Gly Gln Pro Ser Asn Glu Glu Gly Ser Arg Leu Glu Ser Asp Phe Leu Glu 11e 11e Asp Glu Asp Lys Lys Lys Ser Thr Lys Asp Arg Tyr Glu Glu Tyr Lys Glu Val Glu Glu His Pro Pro Leu Ser Ser Pro Val Glu His Glu Gly Val Leu Lys Gly Gln Lys Ser Tyr Arg Cys Asp 

Glu Cys Gly Lys Ala Phe Tyr Trp Ser Ser His Leu Ile Gly His Arg 

Arg Ile His Thr Gly Glu Lys Pro Tyr Glu Cys Asn Glu Cys Gly Lys Thr Phe Arg Gln Thr Ser Gln Leu Ile Val His Leu Arg Thr His Thr Gly Glu Lys Pro Tyr Glu Cys Ser Glu Cys Gly Lys Ala Tyr Arg His Ser Ser His Leu Ile Gln His Gln Arg Leu His Asn Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Ala Lys Ala Phe Asn Gln Ser Ser Lys Leu Phe Asp His Gln Arg Thr His Thr Gly Glu Lys Pro Tyr Glu Cys Lys Glu Cys Gly Ala Ala Phe Ser Arg Ser Lys Asn Leu Val Arg His Gln Phe Leu His Thr Gly Lys Lys Pro Tyr Lys Cys Asn Glu Cys Gly Arg Ala Phe Cys Ser Asn Arg Asn Leu Ile Asp His Gln Arg Thr His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Ala Phe Ser Arg Ser Lys Cys Leu lle Arg His Gln Ser Leu His Thr Gly Glu Lys Pro Tyr Lys Cys Ser Glu Cys Gly Lys Ala Phe Asn Gln Ile Ser Gln Leu Val Glu His Glu Arg lle His Thr Gly Glu Lys Pro Phe Lys Cys Ser Glu Cys Gly Lys Ala Phe Gly Leu Ser Lys Cys Leu Ile Arg 

<210> 4986

<211> 191

<212> PRT

<213> Homo sapiens

Met Tyr Ala Lys Arg Pro Glu Ser Phe Ser Cys Lys Lys Leu Ala Met

1 10 15 Ser Lys Lys Val Thr Pro Ala Ser Thr Gln Cys Val Arg Phe Pro Phe 20 25 Pro Ser Thr Val Val Cys Lys Lys Asn Leu Asp Ser Thr Thr Val Ala 40 45 Val His Gly Glu Glu Ile Tyr Cys Lys Ser Cys Tyr Gly Lys Lys Tyr 50 55 60 Gly Pro Lys Gly Tyr Gly Tyr Gly Gln Gly Ala Gly Thr Leu Ser Thr 75 Asp Lys Gly Glu Ser Leu Gly lle Lys His Glu Glu Ala Pro Gly His 90 Arg Pro Thr Thr Asn Pro Asn Ala Ser Lys Phe Ala Gln Lys Ile Glv 100 105 110 Gly Ser Glu Arg Cys Pro Arg Cys Ser Gln Ala Val Tyr Ala Ala Glu 120 Lys Val Ile Gly Ala Gly Lys Ser Trp His Lys Ala Cys Phe Arg Cys 130 135 140 Ala Lys Cys Gly Lys Gly Leu Glu Ser Thr Thr Leu Ala Asp Lys Asp 150 155 160 Gly Glu Ile Tyr Cys Lys Gly Cys Tyr Ala Lys Asn Phe Gly Pro Lys 170 Gly Phe Gly Phe Gly Gln Gly Ala Gly Ala Leu Val His Ser Glu 180 185 190

<210> 4987

<211> 482

<212> PRT

<213> Homo sapiens

<400> 610

Met Trp Thr Val Pro Ser Phe Thr Asn Asp Ser Tyr Gln Val Tyr Asn 1 5 10 15 Val Phe Ser Thr Asn Ser Phe Gln Leu Leu Thr Val Lys Arg Thr Pro

			20					25					30		
His	Glu	Λla	Trp	Arg	Val	Pro	Leu	Thr	Thr	Lys	Thr	Asn	Lys	Thr	Lys
		35					40					45			
G1 y	Leu	Pro	Asp	Cys	Pro	Lys	Lys	Pro	Thr	Asn	Gly	Pro	Phe	lle	Val
	50					55					60				
Thr	Ser	He	Leu	Trp	Asp	Asn	Cys	Asn	Ala	Pro	Lys	Ala	Val	Val	Leu
65					70					75					80
Gln	Thr	Leu	Ala	Met	Gly	lle	Val	11e	Asp	Trp	Ala	Pro	Lys	Gly	His
				85					90					95	
Tyr	Trp	Gln	Asp	Cys	Ser	Ser	Lys	Asn	Thr	Leu	Cys	Ser	Glu	Phe	Ile
			100					105					110		
Tyr	Ser	Leu	Asp	Tyr	He	Glu	His	Gly	Trp	Gln	Ser	Tyr	Thr	Met	Arg
		115					120					125			
Gln	Arg	Val	Ser	Pro	Tyr	Pro	Phe	Lys	Trp	Met	Asp	Thr	Gly	He	Ala
	130					135					140				
Pro	Pro	Arg	Pro	Lys	He	He	His	Pro	Phe	Phe	Thr	Pro	Glu	His	Pro
145					150					155					160
Glu	Leu	Trp	Lys	Leu	Ala	Ala	Ala	Leu	Ser	Gly	He	Lys	Ile	Trp	Asn
				165					170					175	
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Thr	Phe	Asn	Pro	Thr	Thr	Ser	He	Leu	Leu	Val	Arg	Ala	Arg	Glu	Gly
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Val	Trp	lle	Pro	Val	Ser	Leu	His	Arg	Pro	Trp	Glu	Ser	Ser	Pro	Ser
			260					265					270		
He	His	He	Val	Asn	Glu	Val	Leu	Lys	Asp	lle	Leu	Lys	Arg	Thr	Lys
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Arg		lle	Phe	Thr	Leu	lle	Ala	Val	Leu	Ala	Gly	Leu	Leu	Ala	Val
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Thr	Ala	Thr	A12	Ala	Thr	Ala	C1v	Vol	110	T1.	120	Sor	202	Vol	C1n

Thr       Ala       His       Typ       Val       Glu       Ala       Cys       Glu       Lys       Asn       Ser       Ser       Arg       Leu         Ass       Ser       Gln       Ala       Gln       Gln       Gln       Gln       Gln       Gln       Gln       Ala       A	305					310					315					320
Asn Ser Gln Ala Gln Ile Asp Gln Lys Leu Ala Asn Gln Ile Asn 340	Thr	Ala	His	Tyr	Val	Glu	Лlа	Cys	Gln	Lys	Asn	Ser	Ser	Arg	Leu	Trp
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His Arg   Met   Gln   Leu   Gln   Cys   Asp   Trp   Asn   Thr   Ser   Asp   Tyr   Cys				340					345					350		
His       Arg       Met       Gln       Leu       Gln       Cys       Asp       Trp       Asp       Thr       Ser       Asp       Tyr       Cys         370	Leu	Arg	G1n	Ser	Val	Thr	Trp	Leu	G1 y	Asp	Arg	Val	Met	Asn	Leu	G1n
370       375       380       380       381			355					360					365			
Thr       Pro       Tyr       Ala       Tyr       Asn       Gln       Asp       Gln       His       Ser       Trp       Glu       Asn       Val         385	His	Arg	Met	Gln	Leu	Gln	Cys	Asp	Trp	Asn	Thr	Ser	Asp	Tyr	Cys	Πle
385		370					375					380				
Arg His Leu Lus Lus Lus His Leu Lus Lus Lus Lus Lus Lus Lus Lus Lus Lu	Thr	Pro	Tyr	Ala	Tyr	Asn	Gln	Asp	Gln	His	Ser	Trp	Glu	Asn	Val	Ser
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Leu Lys Glu Gln Ile Phe Glu Ala Ser Gln Val His Leu Ser Thr 420	Arg	His	Leu	Lys	Ala	Trp	Asp	Asp	Asn	Leu	Thr	Leu	Asp	He	Ser	Gln
Pro       G1y       Ser       His       I1e       Phe       G1u       G1y       I1e       Thr       Lys       G1n       Leu       Pro       Asp         Asn       Pro       Phe       Lys       Trp       Leu       Lys       Pro       Val       Arg       G1y       Ser       Leu       Leu       Leu         Ala       Leu       Leu       Val       Cys       Leu       Cys       Leu       Leu       Leu       Val       Cys         465       Leu       Leu       Val       Cys       Leu       Leu       Leu       Val       Cys         465       Leu       Leu       Val       Cys       Leu       Leu       Leu       Val       Cys					405					410					415	
Pro Gly Ser His Ile Phe Glu Gly Ile Thr Lys Gln Leu Pro Asp 435	Leu	Lys	Glu	Gln	He	Phe	Glu	Ala	Ser	Gln	Val	His	Leu	Ser	Thr	Val
Asn Pro Phe Lys Trp Leu Lys Pro Val Arg Gly Ser Leu Leu Leu A50  Ala Leu Leu Ile Leu Val Cys Leu Cys Cys Leu Leu Leu Leu Val Cys 465				420					425					430		
Asn Pro Phe Lys Trp Leu Lys Pro Val Arg Gly Ser Leu Leu Leu Leu 450	Pro	Gly	Ser	His	He	Phe	Glu	G1 y	Ile	Thr	Lys	Gln	Leu	Pro	Asp	Phe
450 455 460  Ala Leu Leu Ile Leu Val Cys Leu Cys Cys Leu Leu Leu Val Cys 465 470 475			435					440					445			
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465 470 475		450					455					460				
	Ala	Leu	Leu	He	Leu	Val	Cys	Leu	Cys	Cys	Leu	Leu	Leu	Val	Cys	Arg
Cys Leu	465					470					475					480
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<212> PRT

<213> Homo sapiens

<400> 611

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Leu	Val	Glu	His	Thr	Cys	His	Arg	Gly	Λla	Val	Thr	Gly	Leu	Thr	Ala
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Thr	Pro	Asp	Gly	Arg	Leu	Leu	Phe	Ser	Ser	Cys	Ser	Gln	Gly	Ser	Leu
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Ala	Gln	Tyr	Ser	Cys	Ala	Asp	Pro	Gln	Trp	His	Val	Leu	Arg	Val	Ala
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Asp	He	Gly		Leu	Asp	Leu	Ala		Ser	Arg	Leu	Asp		Ala	Met
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Ala	Val		Phe	Gly	Pro	Ala		Leu	Gly	Gln	Leu		Val	Ser	Thr
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Ser		Asn	Arg	Val	Val		Leu	Asp	Ala	Val		Gly	Arg	He	He
Δ	210		D.	C1	V. 1	215	15	C1	15	C	220 D	C		TI.	,
	GIU	Leu	Pro	Gly		HIS	Pro	61 u	Pro		Pro	Ser	Leu	Inr	
225	C1.,	Aan	110	Ana	230 Db.o	Lau	Lan	11.	A 1 -	235	C1	۸	ть	71.	240
sei	Gru	nsp	нта	245	rne	reu	Leu	116	Ala	Ala	GIY	Arg	inr	255	Lys
Val	Trn	Acn	Tur		The	Cln	Ala	Sor	250 Pro	C1v	Dro	Cln	Vol		Ha
( (1	пр	nsp	260	Ala	1111	OTH	пта	265	110	Oly	110	OIII	270	1 9 1	116
Glv	His	Ser		Pro	Val	Gln	Ala		Ala	Pho	Sor	Pro		Gln	Gln
01,	1115	275	Olu	1.0	, 41	OIII	280	, 01	ma	THE	561	285	пар	GIH	OIII
Gln	Val		Ser	Ala	G1v	Asn		Val	Phe	len	Trn		Val	Len	Ala
• • •	290	200	~ ~ .		019	295	213 G		, nc	Leu	300	sp	. (1,1	Lou	111 CI
Thr		Glu	Ser	Asp	Gln		Phe	Pro	Gly	Ala		Pro	Ala	Cvs	Lvs
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Arg Leu Gly Val Cys Ala Arg Pro Pro Glu Gly Gly Asp Gly Ala Arg
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Asp Thr Arg Asn Ser Gly Ala Pro Arg Thr Thr Tyr Leu Ala Ser Cys
                        375
Lys Ala Phe Thr Leu Ala Arg Val Ser Cys Ser Pro His Ser Ala Lys
385
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                                        395
Gly Thr Cys Pro Pro Pro Ala Ser Gly Gly Trp Leu Arg Leu Lys Ala
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                                    410
Val Val Gly Tyr Ser Gly Asn Gly Arg Ala Asn Met Val Trp Arg Pro
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                                425
                                                    430
Asp Thr Gly Gly Gly Gln Glu Pro Thr Pro Thr Pro Ser Gln Asp Ala
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Arg Ser Asn Tyr Ser Glu Leu Arg Glu Asp Ile Gln Thr Lys Gly Lys
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<210> 4990

〈211〉 589

<212> PRT

<213> Homo sapiens

<400> 614

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Glu	lle	Gly	Ala	Ser	Ser	Ser	Ser	Ser	Thr	Glu	Ala	Leu	He	Ser	Ala
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Val	Met	Ala	Gly	Arg 165	Ser	lle	Ser	Pro	Trp 170	Leu	Ala	Arg	Arg	Thr 175	Ser
Pro	Ala	Asp	Ser 180	Ser	Gly	Asp	Ser	Ala 185	Ile	Ala	Ser	Cys	His 190	Asp	Gly
Gly	Ser	Ser 195	Tyr	Gly	Lys	Glu	Asp 200	G1n	Glu	Pro	Lys	Ala 205	Λsp	Gly	Pro
Asp	Asp 210	Val	Ser	Ser	Gln	Pro 215	Leu	Trp	Pro	Gly	Asp 220	Val	Gly	Tyr	Gly
Pro 225	Leu	Arg	Ile	Lys	Glu 230	Glu	Gln	Val	Ser	Pro 235	Ser	Gln	Tyr	Gly	G1y 240
Ser	Glu	Leu	Pro	Ser 245	Ala	Lys	Asp	Gly	Ala 250	Va1	Gln	Asn	Ser	Phe 255	Ser
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Asp	Ser 290	Arg	Ala	Ser	Ser	Pro 295	Val	Pro	Ser	Phe	Leu 300	Pro	Thr	Ser	Gly
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Ala 385	Asp	Va]	Leu	Gly	Asp 390	Asp	Gly	Ser	Leu	Leu 395	Phe	Glu	Tyr	Leu	Pro 400
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Lvs	Phe	Lvs	Cvs	Pro	Tvr	Cvs	Ser	Phe	Ser	Ala	Met	His	Gln	Cvs	11e

			420					425					430		
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	450					455					460				
Thr	Leu	Val	His	Ser	Lys	Asp	Lys	Lys	Tyr	Val	Cys	Lys	Val	Cys	Ser
465					470					475					480
Arg	Val	Phe	Met	Ser	Ala	Ala	Ser	Val	Gly	lle	Arg	His	Gly	Ser	Arg
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Arg	His	Gly	Val	Cys	Thr	Asp	Cys	Ala	Gly	Arg	Gly	Met	Ala	Gly	Pro
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Ala	Glu	Glu	Leu	G1y	Glu	Asp	Asp	Glu	Gly	Leu	Ala	Pro	Glu	Asp	Ala
545					550					555					560
Leu	Leu	Ala	Asp	Asp	Lys	Asp	Glu	Glu	Asp	Ser	Pro	Arg	Pro	Arg	Ser
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<213> Artificial Sequence

<220>

<400> 4991

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<211> 21
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<400> 4993
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<210> 2001 <211> 2277 <212> DNA <213> Homo sapiens

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<211> 2276

<212> DNA

<213> Homo sapiens

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<211> 2076

<212> DNA

<213> Homo sapiens

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<sup>&</sup>lt;210> 2004

<sup>&</sup>lt;211> 2525

<sup>&</sup>lt;212> DNA

# <213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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<213> Homo sapiens

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<213> Homo sapiens

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<213> Homo sapiens

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<400> 2026

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<213> Homo sapiens

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<213> Homo sapiens

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<213> Homo sapiens

# <400> 2034

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<211> 3758

<212> DNA

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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<211> 2538

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<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<210> 2052

<211> 1727

<212> DNA

<213> Homo sapiens

<400> 2052

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<211> 2079

<212> DNA

<213> Homo sapiens

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<211> 1913

<212> DNA

<213> Homo sapiens

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<211> 2751

<212> DNA

<213> Homo sapiens

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<211> 2816

<212> DNA

<213> Homo sapiens

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<211> 1766

<212> DNA

<213> Homo sapiens

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<211> 3359

<212> DNA

<213> Homo sapiens

<400> 2058

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<211> 1692

<212> DNA

<213≻ Homo sapiens

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<211> 2269

<212> DNA

<213> Homo sapiens

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<sup>&</sup>lt;210> 2061

<sup>&</sup>lt;211> 2395

<sup>&</sup>lt;212> DNA

<sup>&</sup>lt;213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<211> 3914

<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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<213> Homo sapiens

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<sup>&</sup>lt;211> 2563

<sup>&</sup>lt;212> DNA

<sup>&</sup>lt;213> Homo sapiens

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<212> DNA

<213> Homo sapiens^

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